

# MONSOON ASSEMBLAGES

## DHAKA FIELD TRIP REPORT June - July 2018

Beth Cullen + Christina Geros



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## Itinerary

<b>Week 1</b>	Monday 25 June	Tuesday 26 June	Wednesday 27 June	Thursday 28 June	Friday 29 June	Saturday 30 June	Sunday 01 July
Notes	AM Beth arrives  PM Meeting at a research institute	AM Planning  PM Visit to Madani Avenue	All day Preparation visit to Savar	AM Planning  PM Meeting at a research institute, Global refugee Day event  EVE Dinner with executive director 1	All day Bus to Sylhet  EVE Wedding in Derai	AM Derai to Sylhet  PM Tea garden  EVE Sylhet University	All day Bus back to Dhaka
<b>Week 2</b>	Monday 02 July	Tuesday 03 July	Wednesday 04 July	Thursday 05 July	Friday 06 July	Saturday 07 July	Sunday 08 July
Notes	AM Planning  PM Meeting at a research institute	All day Mapping in Savar	All day Filming in Savar	All day Interviews in Savar	AM Finish work in Savar  PM Photograph Gulshan / Banani Lake	All day Tour around old Dhaka	AM Meeting with the director of an international agency  PM Meeting with meteorologist 2

							EVE Meeting with the project co-ordinator of a research institute
<b>Week 3</b>	Monday 09 July	Tuesday 10 July	Wednesday 11 July	Thursday 12 July	Friday 13 July	Saturday 14 July	Sunday 15 July
	All day Trip to Loujahong	AM Meeting with meteorologist 3  PM Meeting with architect 5	AM Planning  PM Meeting with architects 1 and 2  EVE Dinner with executive director 1	AM Flight to Khulna  PM Meetings at Khulna University	AM Prawn farm with academic 2  PM Travel to Mongla	AM Shrimp hatchery at an eco resort  PM Mongla market	All day Shrimp farms around Mongla  EVE Fly back to Dhaka
<b>Week 4</b>	Monday 16 July	Tuesday 17 July	Wednesday 18 July	Thursday 19 July	Friday 20 July	Saturday 21 July	Sunday 22 July
	AM Planning  PM Meetings at the University of Dhaka	AM Rest  PM Planning	AM Travel to Gazipur Meetings at an agricultural research institute  PM	AM Meeting with executive director 2  PM Meeting with the country director of	AM BC travels to Chandpur  PM BC meets with scientific officers	AM BC further meetings in Chandpur; CG visits floating school with architect 1	AM CG meets with the director of an ngo;  PM Filming around Dhaka

	EVE Interview executive director 1		Interview architects1 and 2	an international ngo  EVE Dinner with urban planner 1	of a research institute	PM BC travels back to Dhaka; CG with architect 1	
<b>Week 5</b>	Monday 21 July	Tuesday 22 July	Wednesday 23 July	Thursday 24 July	Friday 25 July	Saturday 26 July	Sunday 27 July
	AM Meeting with academics 7 and 8  PM BC meets with staff at the research institute CG leaves for Delhi BC meets with the research institute	AM BC meets with staff at the research institute CG flies Delhi to Ladakh  PM BC Further meetings with research institutes CG in Leh	AM BC meets with a representative of a centre for indigenous knowledge;  PM BC meets with a craft organisation  EVE BC meets with members of an arts foundation  All day CG meets with an ngo in Leh	AM BC meets with a former colleague CG contacts second ngo in Leh  PM BC films in Mirpur and Gaptoli CG prepares to travel outside of Leh  EVE BC meets again with executive director 1	AM BC meets with a prominent Bangladeshi intellectual PM BC meets with a river keeper and a civil engineer.  All day CG visits monasteries around Leh, filming	AM BC leaves Dhaka for london  All day CG travels from Leh to Tso Moriri	All day CG travels from Tso Moriri to Tso Kar and back to Leh.
<b>Week 6</b>	Monday 28 July	Tuesday 29 July					

	All day CG meets with an ngo in Leh	AM CG flies Leh to Delhi  PM CG flies to London					

## FIELDNOTES

### Week 1

Christina arrived in Dhaka on Sunday morning (24 June), Beth arrived the next morning (25 June) due to a delayed flight. In the first week, our aim was to meet with RIB and initiate contact with the Bede community—primarily to set the groundwork for PV work to commence the following week. We tried to set up meetings with Kazi and Saif as well, but they were traveling; so, we made plans to meet with them later during our trip. As well, we thought the first week would be a good time to ‘check-in’ on some of the sites we had outlined in February: Dolai Khal, Turag River, and Madani Avenue. Once there, however, we saw early on that activity along the river was not what it had been during the dry months and, after speaking with our contact at the Dolai Khal switch gate, the rains had not been heavy enough to change activity along the canal.

#### *Monday*

- Monday afternoon, we arranged an initial meeting with a research institute. We discussed our plans with the executive

director (executive director 1) who gave recommendations of people to meet with, we also met her project co-ordinator who acted as a translator and assisted us for the entire trip.

- We also had a bit of ‘house cleaning’ to take care of in the first couple days. The Airbnb was okay, but not great. We purchased cleaning products and new bed sheets so that we could make the place tolerable for our stay.
- We also had issues with the internet. The host did try to get this taken care of, but it was problematic for the duration of our stay. During the first week, we had no internet at all and, after a repair man came to fix it a couple times, we only had an intermittent connection for the rest of the time.

#### *Tuesday*

- On Tuesday, we arranged to travel along Madani Avenue to the Balu River with our assistant from the research institute in their offices. Before leaving, executive director 1 mentioned the relationship between Balu River and Banani and Gulshan Lakes.

They were linked by the *Balu Joti* in the past, but this connection has been disturbed due to urban expansion.

- She also mentioned the restoration of *Hatirjheel*, meaning “Elephant Lake”, a new waterfront development near our apartment in Niketon which is intended to be a transportation medium for minimizing traffic congestion.
- It was interesting to return to Madani Avenue in the wet season, although the rains were not heavy at this point in the trip. The area was not as active as it had been when we visited in February; there was less construction work and the landscape was greener with more vegetation.
- We met a group of male and female seasonal workers constructing a small link road adjacent to the Satarkul Vatara bridge. They said they came from the northern Char region of the Brahmaputra River. Apparently, this work in Dhaka was organised for them by a “headman” from their home village who acts as a broker on their behalf.
- Men are paid approximately 500 taka per day and women 400 per day, apparently it is typical for women to be paid less than men for the same labour. When we asked where they would work next, they replied that there is no set pattern, they migrate to where work is available.
- We then visited some settlements to the south of the road, and were invited into several homes. We spoke with them about the land filling and construction works, changes in land use patterns, the impact on local ecologies and changes in their own livelihoods and circumstances.
- Apparently, this part of the city used to be a highly fertile rice and fish producing area, and hosted itinerant merchants who

utilised the river system for trade. Although the loss of biodiversity was mentioned, some of the residents we met were positive about the developments because the value of land has increased. Many in the area have sold plots or are benefitting in some way from construction. However, we were also made aware of the politics of land-grabbing and the vulnerability of marginalised groups, many of the people we met were Hindus and were experiencing pressure by local “strongmen” to sell their land for a minimal price.

- During a visit to one of the settlements we witnessed large snakes next to one of the houses – they are definitely a monsoonal presence and are deeply feared. We were also told that their habitat is being disturbed by construction works.

#### *Wednesday*

- On Wednesday, we visited Savar to meet with community leaders in advance of participatory video work. This initial visit involved speaking with a local Bede politician and the manager of small garment factory. The factory has been established by politicians from the Awami League as a training centre to provide income generation and livelihood diversification opportunities for Bede women.
- During this meeting, the community representatives (all male) stressed the importance of development and education for the Bede people and spoke about their status as a marginalised group.

- They were positive about the proposed activities and assigned four male students to work with us. However, there was some discussion about payment for the students. Although we were reluctant to pay people, we agreed to pay a nominal amount to ensure regular participation. It was clear that the students were involved in income generating activities to fund their studies and we couldn't reasonably ask them to spend time with us without adequate remuneration.
- We were aware that the community leaders had instructed the students to accompany us but they seemed very enthusiastic and took us on a tour of the village. They explained that most of the households in the village rely on snake charming and small-scale trading for a living. Within the village there were obvious differences in wealth between households with some living in extremely basic accommodation, and described by the students as being "very poor".
- Neither of us took much video footage or photographs on this day because it seemed inappropriate. We both felt it was more important to concentrate on making good connections with people.
- During the tour, we became aware of how segregated local communities are based on religion and livelihood, the students pointed out the boundaries of the village and explained that they are bordered by a Hindu fishing community and a Muslim community of mixed livelihoods.

#### *Thursday*

- On Thursday, we attended an event at the Liberation War Museum, hosted by UNHCR, to mark World Refugee Day. Executive director 1 was presenting and had suggested that we attend with her if we were available. The event included an art exhibition of paintings by refugees at the Rohingya camps in Chittagong titled "Art for Humanity: The Flight and Resilience of the Rohingya" and a panel discussion titled "1971 Refugee Experience: Reflection of Past and Present". Executive director 1 gave a moving speech about her personal experiences during the Liberation War.
- Later we were invited to have dinner with a friend and colleague of executive director 1 who also spoke about her experiences, it seems that everyone has a 1971 story.
- Through these interactions we became aware of how deeply people have been affected by both the legacy of partition and the war for independence.

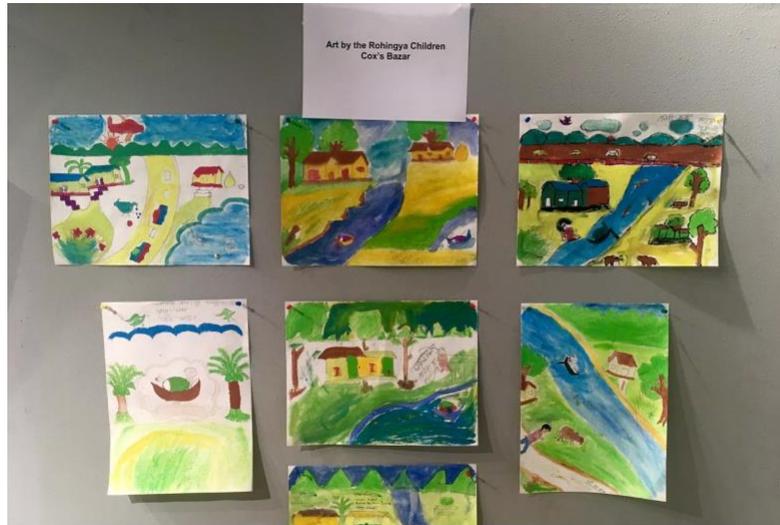
#### *Friday/Saturday/Sunday*

- Later that week we were invited to travel to Sylhet with our assistant to attend a relative's wedding, we thought this would be a good opportunity to visit the Haor area of the northeast which plays an important role in sustaining the larger Meghna river basin. The landscape was incredible and seems to experience very localised weather patterns. We travelled through a monsoon rainstorm, but unfortunately were not able to capture it on film.
- The Hindu wedding ceremony was also an example of how the monsoon influences cultural/religious rituals, and illustrated the

communication and connectivity that is facilitated by the rainy season.

- During our visit, we also learned a lot about connections between Sylhet and London, the expansion of the city is largely being funded by remittances from the UK.
- We experienced travelling by road and by boat to Derai, a relatively remote rural village, during monsoon rains. We were struck by the different qualities of bouncy, firm, sticky mud and the way it is moulded into bunds, walkways, flooring, and housing.
- We also heard other land loss stories, for example our assistant's older brother who still carries intense anger about his experience.
- Our assistant took us to visit the Mulnicherra tea gardens, the first commercial tea plantation established by the British.

- Apparently, the Sylhet tea gardens are an important source of sand and gravel for the country, but this requires further investigation.



Art by Rohingya children. Photo: Beth Cullen.

- Our assistant also suggested we visit the Jaflong stone quarry, but unfortunately there was not enough time. We returned to Dhaka on Sunday.



Traditional boat on Haor, Sylhet. Photo: Beth Cullen.



Hindu wedding, Sylhet. Photo: Beth Cullen.



Hindu bride, Sylhet. Photo: Beth Cullen.



Construction on wetlands, Madani Avenue. Photo: Beth Cullen.



Seasonal workers, Madani Avenue. Photo: Beth Cullen.



Bede snake charmer, Porabari Village. Photo: Beth Cullen.



Traditional Bede houses, Porabari Village. Photo: Beth Cullen

## Week 2

In the second week, most of our time was spent in Savar working with the Bede community. The schedule of that work was driven largely by their availability. Our work with the Bede did not go as planned (certainly not as hoped), but we learned a lot from the experience; recorded some useful footage; and saw parts of the city (and its operations) that we may not have otherwise seen. We were also able to set up a meeting/tour of Old Dhaka with someone we had connected with via Airbnb which exposed another side of the city. And, luckily, (after many missed connections due to his travel schedule) we were able to connect with the director of an international agency and had a productive meeting.

### *Monday*

- On Monday, we visited executive director 1's professor, who has written book on the Bangladeshi painter, Sultan.
- He lives in an apartment overlooking the Gulshan Lake and explained that the lake is a branch of the Balu river, *Balu* meaning sand in Bangla. He had an amazing collection of paintings and pottery on display.
- When we asked him about the monsoon, he described liking the sound of rain but was noncommittal as to whether the monsoon has changed because "it is different all over Bangladesh".
- He stressed that heat and the build-up of heat is an essential part of the monsoon, not just the rains.

### *Tuesday*

- We spent Tuesday, Wednesday and Thursday in Savar working with the Bede community. Although we had asked in the pre-meeting to work with the same people through the week this proved to be difficult to organise.
- Possibly due to tensions between the village "headmen", different people turned up each day making it hard to facilitate the participatory video process.
- We tried to introduce the students to the cameras in a more ad-hoc way, but this was also challenging. Despite this we managed to do a mapping exercise in which we learned a lot about the village. We also attempted to map the local rivers, but the students and younger people had limited knowledge of the river system, possibly because they have been settled for some time.

### *Wednesday*

- On Wednesday, we succeeded in doing some filming which included more formal interviews with village elders and some filming with one of the students.
- He captured some fantastic footage of children playing in the rain (during the trip childhood encounters with monsoon rain emerged as a universal experience regardless of people's backgrounds).
- Working in Savar was also informative for other reasons – our daily drive took us through Aminbazar, where the city's waste is dealt with. On Wednesday we happened to drive through Gaptoli, a centre for the sand and brick trade, which was fascinating and we highlighted it as a place to return to.

- In our conversations with people we also became aware of the rapid expansion of Savar, which has been designated as an EPZ. The development of this area has included a governmental initiative to move tanneries from Hazaribagh to Savar, where there is an effluent treatment plant, in an effort to address the condition of the Buriganga River.

#### *Thursday*

- On Thursday, we recorded interviews with four village headmen, each representing different subgroups or factions within the community, and a “snake charming” performance by a renowned snake charmer within the village.
- Through our conversations it became apparent that the Bede have a complex relationship with snakes. Despite relying on them for their livelihoods, they are feared which leads to the Bede being perceived negatively by the mainstream community.
- We drew a seasonal calendar with the headmen which focused on their cultural/ritual activities and migration patterns as well as snake life cycles.
- We also attempted a river mapping exercise with one of the headmen who interestingly started with the Himalayas and included the significance of landscape dynamics in India and China, regardless of socio-political boundaries. The Bede’s themselves move beyond political borders, and seem to have limited regard for them!
- Our discussions with the headmen also revealed that the Bede have become less reliant on rivers and more reliant on roads

over time, reflecting a transition from river to road transportation in Bangladesh more broadly.

#### *Friday*

- We arrived at the village early in the morning, as scheduled. The previous day we had made arrangements to meet with some of the Bede women to speak with them about their traditional medical practices, knowledge of plants and traditional dancing. We were conscious that we had mostly spent time with male representatives from the community and wanted to try and get some sense of women’s perspectives (Meghna also encouraged us to speak with the women).
- When we arrived the students were clearly unsettled. Apparently, there had been some conflict between the elders regarding payments the previous day. The students also mentioned that it was their prayer day and that somebody in the village had died. They did not seem comfortable about working with us and we were not happy to continue under the circumstances. Babul was surprised and frustrated because he had put a lot of effort into communicating and making necessary arrangements.
- It seemed like the right time to conclude the work with the Bede. Although we did not necessarily achieve the things we had hoped for, some interesting themes emerged which influenced our thinking throughout the trip.
- We drove back to Dhaka and spent the afternoon filming and taking photographs around the Gulshan and Banani Lakes which look quite different during the rainy season. The landscaping

had progressed quite significantly since the last visit and the lakes were inundated with water hyacinth.

### *Saturday*

- Following our three days in Savar we returned to Old Dhaka and were given a guided tour by long-term resident and heritage enthusiast, a contact made through Airbnb. He very kindly took us on a tour of many significant old buildings and public spaces and spoke about the long history of the place as well as the changes that he has witnessed within his lifetime.
- One of the most striking descriptions was his recollections of the Buriganga river during his childhood, compared to its current condition. 30 years ago, his parents used to take him by boat to the opposite bank of the river to play, at that time it was a green space that was used by people who wanted breathing space from Old Dhaka. He remembers the river being full of life, and even reported seeing dolphins. Apparently, the condition of the river has improved in recent months due to the relocation of the tanneries.
- He also took us to visit a Hindu temple where his wife and relatives had congregated for a christening celebration. (We became conscious that many of the people we interacted with during the trip were Hindu and not Muslim, although not consciously).

### *Sunday*

- On Sunday, we arranged a meeting with the director of an international agency. We had a very informative conversation

about his ideas to “ease pressure on Dhaka” by developing “climate resilient”, “migrant friendly” cities around Bangladesh.

- He outlined his vision in quite some detail, which included an overview of the various parameters that he thinks are necessary for attracting migrants to places outside Dhaka. Developing alternative livelihoods are critical to this vision.
- He also stressed that he is focusing on developing human capacities and relations, rather than physical interventions and infrastructures.
- He mentioned a knowledge sharing platform established by his agency as well as an annual international conference which he invited us to participate in.
- We had a very informative meeting with meteorologist 2, who spoke with us at some length about the monsoonal dynamics in the region. His explanation was particularly interesting because it highlighted the “two bay” relationship between the Arabian Sea and the Bay of Bengal and their influence on monsoon patterns.
- He also spoke about wind patterns and their characteristics at different altitudes, evoking a vivid description of the vertical dimensions of the monsoon.



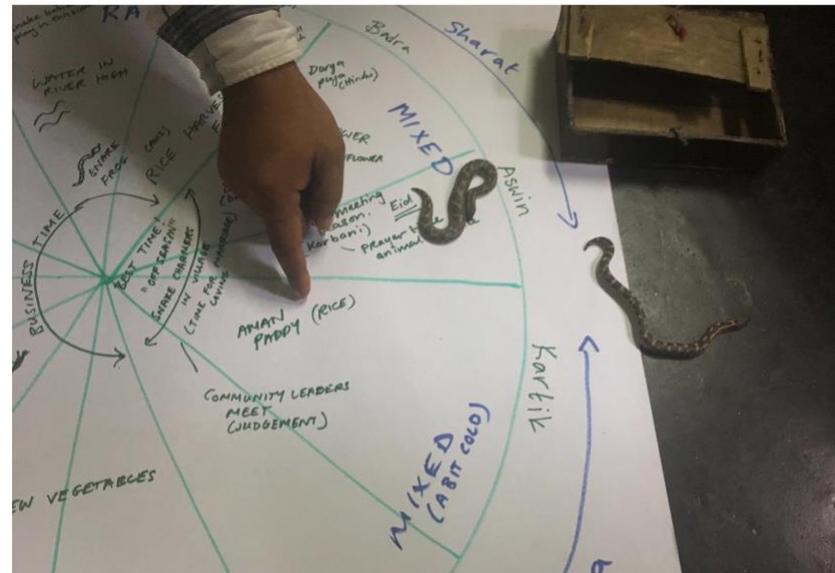
Bede community mapping, Porabari Village. Photo: Beth Cullen.



Interviews with Bede elders, Porabari Village. Photo: Beth Cullen.



Baby pythons, Porabari Village. Photo: Beth Cullen.



Seasonal calendar, Porabari Village. Photo: Beth Cullen.

### Week 3

After completing our work in Savar, we decided to start the third week with a trip to Louhajong to see if we could fill in some gaps with the Bede community in that location. The research organization assisting us had stronger connections in Louhajong, so we were hopeful about the visit. Architects 1 and 2 were also back in Dhaka so we were able to meet with them. As well, we were able to catch up with the architect of a famous café and meeting point in Dhanmondi and had a very long and nice chat with him about his work and life in Dhaka. We also met with the MET Office (our contact had been out of Dhaka until then). The last few days of the week we spent in Khulna and Mongla.

#### *Monday*

- We started the week by visiting the Bede village in Louhajong, we were told prior to the visit that members of this community still lived on boats and maintained the ‘traditional’ Bede way of life. We had high hopes that we would be able to gather information about Bede anchor points, their changing relationship with the river and lunar calendar, but this turned out to be rather more difficult than anticipated.
- Despite the difficulties we had faced during the previous week, in comparison, the community in Savar were relatively easier to work with. We managed to do a seasonal calendar and mapping exercise in Louhajong but it was rather half-hearted.

- However, it was interesting to learn that this community had also been settled there for a relatively long period, at least 150 years.
- Village elders explained that the river “ate” their former village and described rivers as both givers and destroyers of life.
- Our experiences in Savar and Louhajong suggests that there is a romanticised depiction of the Bede as nomadic “river gypsies” which contrasts rather starkly with their current reality.
- The journey to Louhajong was valuable because we were able to witness construction of the Dhaka-Mawa Highway, an immense undertaking designed to link the south of Bangladesh with Dhaka.
- A critical component of the highway is the Padma Bridge, a multi-purpose road-rail bridge being constructed across the Padma River. This is a major infrastructural intervention; the bridge will be the largest in Bangladesh.
- Casual conversations also revealed that more money is spent on road construction in Bangladesh than any other country in the world.

#### *Tuesday*

- On Tuesday, we had another meeting with the MET Office, this time with meteorologist 3.
- We were told by meteorologist 2 that we would need to obtain permission to carry out research with them, but this seemed to relate specifically to the sharing of meteorological data. Everyone was very friendly and welcoming.

- Meteorologist 3 gave us an overview of monsoonal patterns in relation to Bangladesh, using a chart of the region as an aid.
- After discussing relations between weather and the geographies of specific regions, we showed him the seasonal calendar and used it as a way of talking about the similarities and differences between the traditional Bangla seasons and the meteorological seasons. We spoke about seasonal shifts and the differences between scientific data and observed changes which was very informative.
- Later that afternoon we had an informal meeting with architect 5. He talked at length about some of his current projects which include a school building on one of the char islands in the Bay of Bengal and public parks in Old Dhaka. Education and public space are critical both inside and outside Dhaka.

### *Wednesday*

- On Wednesday, architects 1 and 2 invited us to visit them at their institute. We spent time talking with their research staff. We had some very interesting discussions with one of the delta researchers, a geographer, and architect 3. It was useful to get more of an understanding about the focus of their research work which seems to be easing pressures on Dhaka by developing other areas outside the city, similar to that of the director of the international agency we had spoken to, but more focused on infrastructure.

### *Thursday*

- We spent Thursday to Sunday in Khulna and Mongla, logistically the trip was not an easy one and CG experienced severe food

poisoning. The trip involved a visit to Khulna University where we met with a number of their academics. Academic 1 gave us the same presentation that she gave for the DS18 students which highlighted five main drivers of change for Khulna: port, railway, airport, power plant and Padma bridge, all infrastructure developments.

- Our conversation with academic 3 was useful, particularly his work on tidal river management techniques and contributions to the 100-year Delta Plan.
- We also had a brief meeting with academic 4, an agroforestry specialist who has worked on home gardens and biodiversity in Bangladesh.
- Our interactions with academic 2 were more informal, he showed us around the campus and spoke with us about his studio and consultancy work.

### *Friday*

- On Friday he kindly facilitated a visit to a small prawn farm on the outskirts of Khulna owned by one of his clients. His client was a high-profile lawyer who keeps the farm as a hobby.
- He explained that prawn production in the area, which relies on “sweet water”, had been affected by delayed monsoon rains this year and increasingly farmers are relying on groundwater extraction to maintain production.
- He then took us for lunch and drove us to Mongla. We had very useful conversations along the way about the development of both cities.

- He emphasised the importance of understanding the different characteristics of the different regions in terms of weather, geography and socio-cultural dynamics.
- He is critical of the 100-year Delta Plan because he feels it does not consider the unique characteristics of the different delta regions.
- When we reached Mongla we travelled from the ferry ghat to an eco lodge where we stayed for a night. In the morning, we met with the resort owner and manager who gave us a tour of his shrimp hatchery which revealed interesting dynamics related to shrimp production, particularly the harvesting of deep sea water and the “mother shrimp.”
- Interestingly, but perhaps a side note, due to the Bangladesh government’s ban on “mother shrimp” from Cox’s Bazar during certain times of the year, this particular shrimp hatchery buys them from Chennai.
- We spoke with him at length about shrimp production, salinity intrusion, changing weather patterns, the impact of viral diseases (e.g. White Spot) and the future development of Mongla. He gave us a long tour around his ponds. Following the visit, we returned to Dhaka.

#### *Saturday*

- On Saturday, we took the boat back to Mongla where we stayed at a government hotel, we tried to arrange meetings but were not successful as it was a weekend. The following day we managed to arrange a visit to a shrimp and prawn farm.
- The hotel arranged a guide and driver and we were taken to meet the owner of a ten-acre shrimp farm in Burridanga Village, situated near the Mongla EPZ.



Shrimp hatchery, Mongla. Photo: Beth Cullen.



Seasonal calendar, Louhajong. Photo: Babul Sutradhar



Shrimp ponds, Mongla. Photo: Beth Cullen.



Walking interviews, Mongla. Photo: Beth Cullen.

This being the last full week for both of us, we tried to get in as many of the remaining meetings as possible—but of course, people were not always available. We met with lecturers at the University of Dhaka Faculty of Fine Arts regarding calendar and festival information. It was not easy to schedule this, but finally managed in week 4. We had a day when we couldn't schedule any meetings, and our assistant wasn't available, so we spent that time planning and logging material. Particularly after our trip to Khulna and Mongla and from speaking with people in the research organisation's office, it seemed pertinent to meet with another Bangladesh research institute to see about changes in agricultural practices—especially in relation to increasing salinity and changing drought patterns. Fortunately, we were able to schedule that meeting with the help of the research organization assisting us.

We had planned a filmed interview with architects 1 and 2, which we were able to take care of—though conditions for the filming were not ideal that day. A researcher who had done quite a lot of work with the Bede agreed to meet with us, which helped round out some information about the Bede community. We also had really informative meetings with other international organisations both very informative with regards to hilsa, shrimp, and prawn. Architect 1 was able to go with us to the floating school, which was actually floating! And, we conducted a filmed interview with executive director 1. An urban planner also organised a dinner with a local very prominent developer.

### *Monday*

- We decided to take some time on Monday morning to recoup after the trip to Khulna/Mongla. In the afternoon, we visited the [Faculty of Fine Arts](#) at the University of Dhaka. We met with two of the faculty staff, who are involved with an initiative to revive seasonal festivals such as Pohela Falgun.
- According to executive director 1, this is part of the struggle for Bengali culture and has been opposed by Islamic fundamentalists.
- The movement seems to be partially an attempt to unite Hindus and Muslims under the banner of a united Bengali culture and they therefore take an explicitly secular stance.
- Although they are focusing on seasonal festivals and the celebrations are hugely popular with members of the general public, academic 5 was careful to point out that people who attend the gatherings may not be interested in the seasons themselves, “they just like a gathering”.
- She stressed the importance of meeting with many different socio-economic groups independently about calendars/monsoons/etc, then putting their knowledge together for a larger conversation. She felt this would be really essential for our final “exhibition” or “conversation”—otherwise, we would only get a small sliver of the population's knowledge.
- We tried to make the most of the time we spent in cars between meetings by talking with the drivers, this was mostly facilitated by our assistant. This week we had a particularly informative conversation with an Uber driver who came from Jaflong in Sylhet. He explained the activities of the quarry which

seem to be seasonal in nature with defined wet and dry season, similar to the brick kilns. We gathered information about wages, working conditions, gender relations, his move to Dhaka and experience working for Uber.

- That evening we conducted a video interview with executive director 1 at her office, the interview covered her memories of the monsoon, memories of Dhaka, urban development, the rivers of Bangladesh and her work with PAR and the Bede.

### *Tuesday*

- We spent Tuesday writing up notes, planning and logging our audio-visual material.

### *Wednesday*

- On Wednesday, we arranged a visit to an agricultural research institute in Gazipur to speak with researchers about the changes to agricultural production practices. We spoke about some of the broad changes happening in rice cropping patterns around the country, particularly in the northwest and southwest.
- There has been a shift in production in the different regions, partially influenced by changing climatic factors but also by human interventions.
- The director general of the institute mentioned that most of their research is now related to climate change. They are working to develop both saline and drought tolerant rice varieties to cope with environmental changes and are also investigating the implications of changing temperatures on crops.

- One of the farming systems researchers gave us an overview of the topographic typologies of Bangladesh, determined by levels of water inundation after the rains. Their senior plant breeder, mentioned the pressures on land in Bangladesh and the implications for agricultural production and food security.
- Apparently, there is a government policy to focus industrial development in the north and shift agricultural production to the south, which seems counter-intuitive as the south is vulnerable to extreme weather events, sea level rise and salinity intrusion.
- The researchers also showed us a policy document called Rice Vision 2050 which outlines country-wide plans for the future of the rice industry. The long-term plan seems to be to shift the focus away from Boro rice production towards Amon rice production, a reversal of the cropping patterns introduced by the Green Revolution.
- Scientists are also concerned about the use of inputs due to the high levels of pesticide and insecticide residues on crops and high levels of heavy metals found in fish. As a result produce from Bangladesh does not always meet international food standards outlined by WHO/FAO which impacts export trade. There are plans to try and encourage farmers to reduce their reliance on inputs through management practices.
- The researchers also spoke about groundwater problems and mentioned that Gazipur, where their research station is located, has experienced a dramatic reduction in groundwater levels in recent years, they link this to the influx of garment factories due to the new EPZ. They also mentioned problems of

water pollution because the factories do not treat effluent before disposing of it.

- On Wednesday afternoon, we conducted a video interview with architects 1 and 2 which covered similar themes to those in our interview with executive director 1: memories of the monsoon, memories of Dhaka, urban development, the work of their institute etc. Unfortunately, there were many other people in the “audience” and the audio isn’t great, but we should be able to use it with some work.

#### *Thursday*

- On Thursday, we visited an anthropologist who has worked extensively with the Bede community and now acts as the Executive Director for an organisation which works with marginalised communities including waste pickers (executive director 2). We had a very helpful conversation about our experiences with the Bede and learned more about the work his organisation is doing with slum dwellers in Dhaka, he highlighted that most of the people working as waste pickers are climate migrants who have left their home regions following extreme weather events or other environmental shocks.
- In the afternoon, we visited another international agency and its country director, and some of their senior researchers about shrimp and hilsa fish, Bangladesh’s “Blue Economy” policy, and interactions between urban development and aquatic systems. They were very interested in our research and stressed that not enough is being done to make connections between processes of urbanisation, industrialisation and fisheries.

#### *Friday/Saturday*

- On Friday and Saturday, Beth decided to visit a research institute in Chandpur with the assistant from the research organisation. The main aim was to collect further information about hilsa fish, but taking the ferry to Chandpur also allowed us to record footage of the river, the brick kilns along the banks of the Buriganga River and sand dredging in the Meghna River to complement the footage we had taken during the last trip.
- The Chandpur research station is the centre of hilsa research in Bangladesh. This visit offered an opportunity to learn about the various R4D initiatives to save the hilsa fish, the implications of changing monsoon patterns and river morphology and the impacts of urbanisation and industrialisation on riverine environments and ecologies.
- During the trip Beth stayed at the research institute guesthouse, hosted by the Chief Scientific Officer. On Friday evening she was taken on a tour of the research station and research vessel, she visited an event being organised for national fisheries week and visited the main hilsa fish market. Beth also managed to get footage of the sun setting over the confluence of the Padma and Meghna Rivers.
- On Saturday researchers arranged an informal focus group interview with members of a local fishing community which was very informative. They spoke about their experience of changing monsoon rainfall patterns, problems with river pollution, the effects of sand dredging and large-scale infrastructural interventions on hilsa behaviour.

- Christina stayed in Dhaka and worked on pulling together some of our thoughts spatially. We also knew there was a possibility that the Chandpur trip might extend into Saturday and we already had commitments for Saturday morning.
- On Saturday, Christina visited the brick kiln and floating school with architect 1. It was nice to see the project during the monsoon period, and this time the school was floating! Architect 1 was there to see some ongoing water-damage issues. On the trip to the school and afterwards, there was opportunity to chat with him about the growth of the city and architectural practices. The brick kiln next to the school was not operational, but there were still men around doing work—getting ready for the next season and harvesting charcoal. It was pretty incredible to see how different the landscape was when completely wet and it was possible to get footage to contrast that from February.
- Saturday night we had dinner with an urban planner and a prominent local developer; spoke about the politics of real estate in Dhaka, policy making processes and the misuse of power by local politicians.

#### Sunday

- Sunday morning, Christina met with the director of an organization involved in aquaculture production and trade. He was great to meet with and really helpful with regards to the specifics of shrimp farming in Bangladesh.
- He also passed along a book of data that we can get in GIS form and has also sent me a couple articles.

## Week 5

The last few days in Dhaka were packed. Our assistant from the research organization helped set up as many of the remaining meetings as possible and it was a really productive few days. Before Christina left for Ladakh, we met with academic 7. Beth was able to meet with a farmer and agroecology researcher as well as a second meeting with the research team leader of an international organisation. Both meetings proved to be really informative and they were able to draw through seasonal calendars. Beth was also able to meet with people a resource centre for indigenous knowledge, an arts foundation, an urban planner, a prominent Bangladeshi intellectual and a river keeper, as well as an civil engineer. There were a couple sites, Mirpur and Gaptoli, that she was also able to get some footage of during the last few days. Christina's time in Ladakh was also very productive and brought a new dimension to the idea of "emergent monsoonal landscapes"—see more below.

### *Monday*

- On Monday, we organised a meeting with academic 7 before Christina left for Ladakh. We spoke about the work they are doing with delta modelling and their experience of international collaborative and interdisciplinary projects. He stressed the importance of Bangladeshis finding solutions for themselves, "the problems of Bangladesh cannot be solved by outsiders".
- He also mentioned the dominance of local consultants who command vast fees but have limited understanding of the country and its internal dynamics, both biophysical and social.
- He also mentioned work he is doing to trial interventions, called "bundle structures", that address river erosion. He commented that people often assume because the Bangladesh Delta is a vast system it requires strong infrastructural interventions to control it. However, he feels "it is a mistake to respond to strength with strength" and focuses instead on low tech, low cost interventions.
- He gave us some useful articles and shared the link to an edited volume they have produced called "Ecosystem Services for Well-being in Deltas".
- Christina left Dhaka on Monday evening and Beth spent the remaining week in Dhaka meeting with various people.

### Dhaka (Beth Cullen)

#### *Tuesday*

- On Tuesday, I met with a farmer and agroecology researcher attached with the research organisation we have been working through. We talked over a seasonal calendar about his experience of changes to agricultural systems and monsoon weather patterns. I also met with the organisation's chairman who was very keen to support our research and gave me some valuable contacts.
- Later that afternoon I met with a research team leader at the country office of an international agency. We drew a seasonal calendar of the hilsa fish, their life cycle, breeding and migration patterns which are influenced by both monsoon and lunar cycles and spoke about the connections between the river systems of Bangladesh and the Bay of Bengal.

### *Wednesday*

- On Wednesday, I met with a representative of an organisation for the study of indigenous knowledge established partly through the support of my PhD supervisor. It has focused on certain key agro-ecological regions of the country but is starting to focus on urban development processes and are also working with climate migrants and slum dwellers. They believe in a “green vision” for urban development that “creates space for all living beings”. They believe strongly that other species need to be considered within human development processes and they promote a philosophy of “diversity, interdependence and pluralism”.
- That afternoon I met with the executive chairman of a company dedicated to the revival of natural dyes and fibres. We discussed the role that the seasons play in the natural dyeing process, the environmental impacts of garment factories in Bangladesh and the potential for expansion of natural techniques.
- Following my meeting, our assistant managed to get me a meeting with urban planner 2. We spoke about the work he is doing to develop master plans for various Town Upazilas around the country. He stressed that planning processes do take into account environmental, hydrological, climatic and population factors, but problems emerge during the implementation of the plans. Politicians are overly involved in the process and often have other agendas, which means the plans and recommendations are either ignored or overruled. We also spoke about country-wide plans to shift the construction sector away from traditional brick production

towards more “ecological” mortar bricks made from sand and cement. He recommended that we make contact with organisations advocating for clean kiln technologies.

- Later that evening I met an artist and his wife, who have established an independent arts foundation. We spoke at length about their work. The artist was involved with a project which used life-sized elephant puppets to teach Rohingya refugees how to react when elephants enter their camps. They are very keen to collaborate with us and would be great contacts for the final exhibition.
- I then had a late dinner with architect 1 to say goodbye. He is keen to maintain a connection with the project and would like to explore ways for us to collaborate more closely with his institute.

### *Thursday*

- On Thursday, I made a visit to Mirpur, along same route we took on our previous trip. This time I came across large-scale land filling activities, apparently for a public-private partnership housing development. I also observed road works and drainage maintenance activities in process. According to local residents this work is linked to the Metro Rail project which aims to address Dhaka’s traffic problems but is also facilitating the northern expansion of the city. The Mirpur area experienced flooding due to heavy rains during the latter part of our trip. I also observed, and filmed, untreated effluent being discharged from a garment factory through one of the open drains.
- That morning I went to meet a former colleague of mine with links to agricultural research institutes in Bangladesh. Among

other things, we spoke about the impact of the Green Revolution and agricultural mechanisation and the tensions between brick kilns and agricultural production.

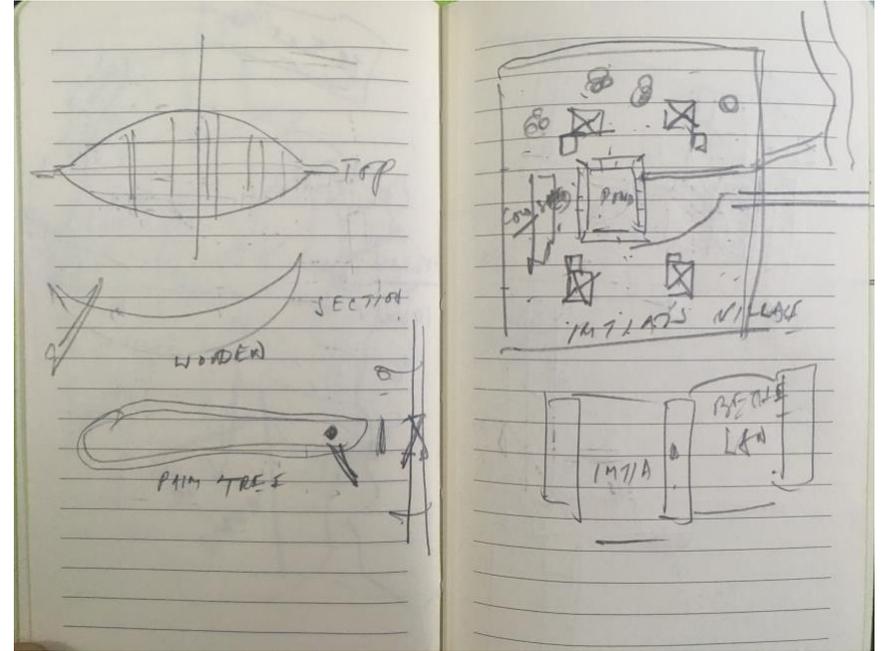
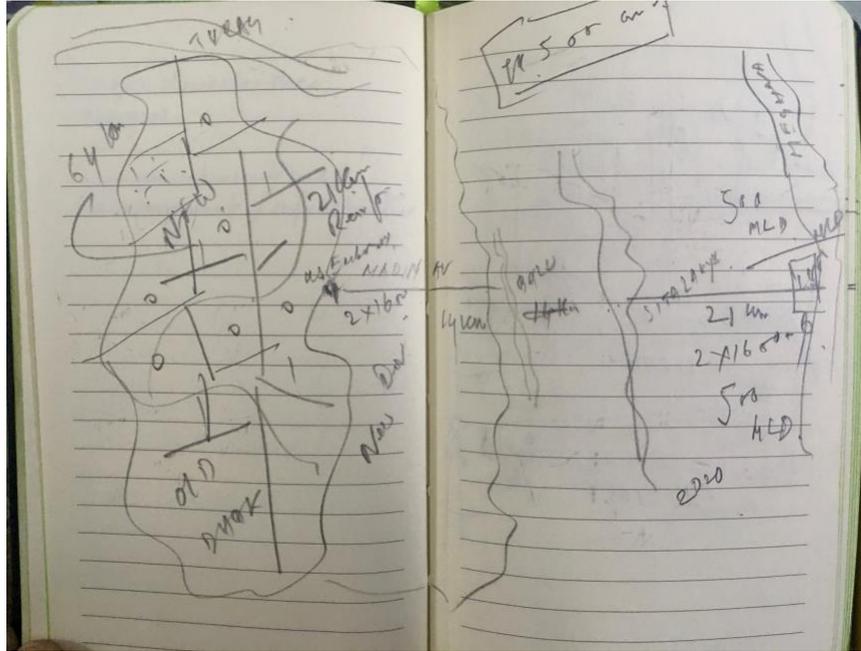
- That afternoon I visited the edge of the Turag River, there was not much happening compared to our visit in February. Apparently, land-filling and construction stops during the wet season.
- I also visited the brick and sand market in Gaptoli and spoke with a local trader who gave me information about construction materials, namely the different qualities of sand, the source of different types of sand, costs for sand and bricks, and transportation and labour arrangements.

#### *Friday*

- On Friday, my last day in Dhaka, I visited a prominent Bangladesh intellectual. We spoke about the Bangla calendar, Rabindranath Tagore's writings about the monsoon and his personal experiences of the monsoon and environmental change.
- That afternoon I met with an environmental activist who is a designated 'riverkeeper.' We spoke about the environmental movement in Bangladesh; the pollution of the Buriganga River; the impact of urbanisation, industrialisation and large-scale infrastructural interventions on Bangladesh's river system; and changing monsoon patterns. He mentioned his relationship with the London waterkeeper and a group of London based Bangladeshi expats who support environmental awareness

raising activities and recommended that we make contact with them.

- My last meeting of the trip was with a civil engineer who I happened to bump into at the Banani Lake during our last trip. We spoke at length about a new major donor funded project which is attempting to secure a sustainable water supply for Dhaka city. Groundwater is rapidly running out and this project aims to switch the city's water supply from aquifers to surface water. Apparently, the aquifer which Dhaka relies on is being depleted by approximately 1 metre per year, something that is being exacerbated by the garment industry.
- Apparently, they tested the water quality in the major rivers around the city but none of them were suitable due to the pollution levels. They finally found a location on the Meghna River south of Dhaka where the pollution levels are sufficiently diluted but this requires a huge distribution network of water treatment plants and transmission pipelines. At the moment they are working on a relocation and resettlement plan to facilitate this. As we talked he found it helpful to draw a sketch of this in my notebook. We also spoke about his experiences of the monsoon, his perceptions of whether monsoon patterns have altered and changes in how people relate to and interact with the monsoon, and monsoon landscapes, since his childhood. He drew sketches of boats and spoke about (and sketched) the differences in the architectural layout of villages now compared to the past and the implications of these changes for how people live with water.



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Land filling, Mirpur. Photo: Beth Cullen.



Sand pipe, Turag River. Photo: Beth Cullen.



Unloading sand boats, Gaptoli. Photo: Beth Cullen.



Sand and brick market, Gaptoli. Photo: Beth Cullen.



Monsoon clouds, Ladakh. Photo: Christina Geros.

### Ladakh (Christina Geros)

- The week in Ladakh was pretty exceptional. There were quite heavy rains during the first four days of the visit, though only at night (as such, unfortunately not very photogenic... but did capture the clouds rolling in). The first couple days were spent in Leh, adjusting to the altitude, walking about the town, and trying to locate people to speak with about the city and the weather. After a few days in town, we took a car (for a couple days) to two lakes in the Rupshu valley and plateau: Tso Moriri and Tso Kar. Then, back to Leh for a day and half before leaving which allowed

us to catch up with people that had been unavailable earlier in the week.

- We were able to meet with two significant groups working in Ladakh. Each one, essentially took an entire day (mostly because the ‘workday’ seems to fairly short in Leh... people are around more or less 10-16, including a lunch hour... and since people were not at all responsive to email, we just had to ‘show up’ and hang around until people were available to meet).
- The first organization was an ecological development group . At the moment, they are focused on a project addressing issues of ‘sustainability’ from different angles. The project team seems to include (quite a few) architects, people looking at agricultural issues, water issues (some engineers, but not all), climate change, and social dynamics. At the moment, they are focused on two elements of research and ‘design’ which include plans to make the city more walkable (with pedestrian ways around the market area) and public toilets across the city that work year-round. We met with the director, one of the architects, a staff member working on climate change, and two others working with water issues. Everyone was very friendly and helpful, not necessarily from Leh but quite knowledgeable about issues and ways of things in the city/region. A few particularly interesting points did arise:
- The notion of a two-week monsoon “season” (last week of July and first week of August) having really taken root in Ladakh. As mentioned, we were there for the last week of July and did witness heavy night rains. We were told that this is the only time in the year that this happens and that it

did not use to occur. Other people that we spoke with had very similar opinions on this.

- According to the researcher working on climate (and research training), the only people taking meteorological readings in Ladakh, officially, are the military and they do not share their data with the public. There is a MET office (we were told of the man who manages this office—he is primarily an electrician but also manages the MET office), but we were unable to find this office nor the man managing it. People at the organization were of the opinion that these offices existed in name but not operation. Both the organisations we visited are setting up their own meteorological reading systems.
- In the past few years, the city has experienced pretty severe floods during the two-week monsoon period. Which is significant for a high-altitude desert that is known for being water-scarce and is simultaneously focusing much of its energy on water-security projects (i.e. stuppa glaciers).
- As a response to these floods, the city is using more and more concrete both as paving and roofing. According to the architect, changes in the materiality and form of roofs (in particular) is something that he sees as a 'monsoonal register'... although, not that these changes are ones working with the monsoon, but rather against it.
- The Green Revolution brought many agricultural species into Ladakh that were not native (of course) and also brought seeds that had been modified to have a longer grow season... people see these things positively, but they have put pressure on the limited supply of water and the delivery of that water with the glacial melt cycle. The

agricultural team and the rain team were not in the Leh while we were visiting, so details on this are slim.. we may be able to correspond via email though we were unable to meet in person.

- It was also claimed that rice (no varieties of rice at all) were ever indigenous to the region... only wheats and barleys... and that rice was brought in by the Indian government as a means of creating dependence upon the state.
- The organization has a campus that is available for residence if we ever visit again. It is a really nice 'ecological' campus that houses their entire team (which is quite large actually) and has room for researchers, or other invited guests. It is in Leh, but a short drive from the office... they took us there to show us the campus and the weather station that has been setup. Two meteorology students from the UK were there helping with the weather station (they were not there during the time we were, but I think they were spending a few weeks there for research).
- The other organization we visited was an arts and media organization. Although we emailed beforehand, we had no response.. so just showed up. We ended up meeting with two people for the afternoon. As an organization, they have many initiatives related for art and education outreach, including a public library (on-site) that has quite a lot of region and city-specific literature. Their centre is nestled into the mountain, just below Leh Palace and is a renovated piece of 17th century architecture. One of their members was particularly helpful and had done some weather-related research.

- According to her the first and oldest meteorological readings were taken by the founder of the Moravian Church in Leh and their practice of taking such readings was continued for many years. She told us we could find them at the church. However, I spent another day trying to track these down to no avail. The pastor at the Moravian Church told me they were now at the Indian Meteorological Survey (probably in Delhi), he wasn't very chatty.
- In addition to visiting these two organisations, we visited two lakes on the same travel loop. It took a day to reach the first

one and a day to get back from the second (to Leh). Permits had to be obtained to leave Leh, as well as a car and driver. The first was Tso Moriri (furthest from Leh) on the Ladakhi part of the Changthang Plateau., the second was Tso Kar: a salt lake, also on the Ladakhi side of the Changthang Plateau. Salt from this lake used to be traded in both India (primarily Kashmir) and Tibet, but is no longer.



Dhaka at dusk. Photo: Beth Cullen.