

IDC School of Design, IIT Bombay

M.Des. P3 Report

The Story of River Nila, its People and its Environmental Destruction

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Project Guide: Prof. Sudesh Balan



Approval Sheet

This project titled 'The Story of River Nila, its People and its Environmental Destruction' by Siddharth A is approved, in partial fulfilment of the requirements for Master of Design degree in Communication Design.

Guide



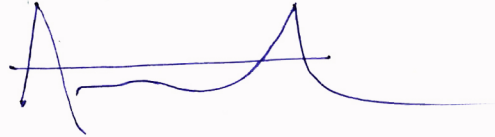
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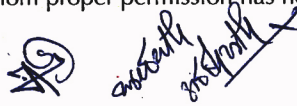
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Declaration

I hereby declare that this written submission submitted to IDC School of Design, IIT Bombay, is a record of original work done by me. This written submission represents my idea in my words, I have adequately cited and referenced the original source.

I also declare that I have adhered to all principles of academic honesty and integrity and have not misprinted or falsified any idea, fact, or source in my submission. I understand that any violation of the above will be cause for disciplinary action by the institute and can also evoke a penal response from the sources which have thus not been appropriately cited or from whom proper permission has not been taken when needed.

A handwritten signature in black ink, appearing to read 'Siddharth Aredath', with a stylized flourish at the end.

Name: Siddharth Aredath
IDC, IIT Bombay, Mumbai
Date: 19/12/19

Acknowledgment

This is my first film. I acknowledge that I have spent the time I allowed myself disproportionately. The film should have been more concise.

I'm grateful to my guide, Prof. Sudesh Balan, who took me in his confidence and supported me through every stage of my academic life at IDC School of Design, including this Project. He taught me not just the basics of camerawork and storytelling but also ways to make sense of the competitive world I am about to enter. He accepted me in his trusted circle of student filmmakers who have all assisted me and influenced my work in various stages. For this, I am grateful to him and his team of Indie filmmakers.

To my family back home. None of this would have been possible without the love and support (emotional and financial) of my father KP Vijayagopalan, mother Madhuri Aredath, and brother, Gautam Aredath, during various stages of my life and this Project. My father and my brother are my go-to proofreaders, transcribers, and subtitlers.

Writing a project report is more stringent than I thought and more fulfilling than I could have ever imagined it to be. The process has brought clarity to me, and I can now clearly see the faults in my work and the way forward to make it better. This project report would not have been possible without deepani seth. She has been instrumental in helping me sort through the information I collected and making sense of it all. Her guidance was also helpful in giving this Project Report the form and structure it has. For all her love and care, I am grateful.

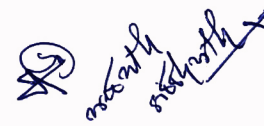
My gratitude goes out to all the staff and students of IDC School of Design, who has helped me through various stages of my Academic and "non-Academic" life in Bombay. I acknowledge the support extended to me by the former Head, Prof. GV Sreekumar, who helped me negotiate various academic troubles I have run into during my term here. I acknowledge the role Prof. Raja Mohanty has played in guiding me towards socially conscious topics and encouraging me to find my own voice. I recognize the role Prof. Nina Sabnani has played in this Project by guiding me to approach filmmaking and ethnography without worrying about the final form it would shape up to be.

I also wish to thank a bunch of close friends who were instrumental in giving shape to the Project. Vinod Nambiar of Vayali (ground support), Sharath KR (fieldwork), Amal Dev C (fieldwork, camera, titles), Dheeraj K (fieldwork), Sam Santosh (fieldwork, sound design), Jishnu Krishnan (additional footages), Anu Sankar (opening sequence) - They have been my support

system.

I am grateful to the People of the River, who accepted me with open arms and encouraged me when I needed it most, while I was in the field. Some of them were kind enough to lend me a place in their home, many assisted me in my travels, taking me to their personal hideouts and sharing their own experiences, and most people shared their valuable time with me. The report is nothing more than an organised collection of their thoughts.

Aredath Siddharth



Abstract

Through much of my masters' degree in design I have been trying to work on questions of environmental conservation. My projects have pushed me to work on this question in different contexts.

In this project, which has been my most extensive yet, I travelled along the river Bharthapuzha that runs through the length of Kerala, documenting the environmental condition of the river, and the lives and occupations of people who live by it. In this process, I interacted and engaged with many people who have been closely related to the river, through personal histories, and some of them, through conservation efforts. In this process, I learnt of how environmental conservation is inextricably linked to social justice. And in a deeply hierarchical society like Kerala, conservation and caste cannot be addressed separately. These are complex questions, which I perceive, and have attempted to understand. However, how does one address the difficult relationships between society, economy and environment in our conservation efforts.

I have tried to use the medium of film as a tool for research. Through this medium I have tried to understand how the changes in society, culture and economy of the riverside population may have contributed to the degradation of the river.

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Ch. 1 Introduction to the Project

I would like to begin this report by elaborating on the reasons for choosing the river, Bharathapuzha, as a subject of study and filmmaking. A survey of Bharathapuzha is interesting and important for two reasons.

First, because it is a river that has both material and cultural importance in the life of Kerala. It is the longest among the rivers that flow through Kerala (250 km) and has the largest basin (6186 sq km)¹. It is crucial to the agriculture of the state² and to its ecology. It is considered the richest river in terms of biodiversity. Of the 117 species present in the river, three species are found nowhere else. Riparian vegetation provides habitat for many forms of life. It is referred to as the aorta of an ecosystem because of its significance to the perpetuation of bioresources.³

The river is the lifeline of the many cities and villages of the state. The number of people that are dependent on the river for their water is close to 40 lakhs. People in close to two hundred panchayats and 12 municipalities depend on the river for their supply of water.⁴

The river is deeply connected to the history and culture of Kerala. The history of civilisation by Bharathapuzha is as old as that of the first settlers of Kerala. The myths and lores surrounding the river are inexhaustible. The banks of the river are dotted with serene and mystical temples, some of whose history goes back a few centuries. Many of these temples continue to play a vital ritual role in the lives of Malayalis. Bharathapuzha is also called Nila, a term more endearing, referring more to the emotion it elicits and the culture it fosters. "Poets have sung paeans to it; writers have immortalised it in their words. The river lives in the nostalgia of childhood dreams and patronage of devoted artistes."⁵

The second reason and one that is more urgent and pressing is that the river is dying. Due to various natural causes and human interventions, many of which have taken place in the last three decades, the ecology of the river and its surrounding environment is under threat. Fourteen of the animal species that live in or around the river are close to extinction. Changes in precipitation, land use, sand mining, deforestation, among other factors, have severely degraded the condition of the river and are accelerating its death. This has been a topic of discussion both in the academic and the non-academic spheres of Kerala. The issues faced by the river are highlighted in mass media, yet investigations and interventions towards its conservation do not seem to be adequate.

There is also a personal reason to study the changes in the river and the

life around it. My father was born in Malappuram district, not very far from the river. His family sold off their ancestral land and the house he grew up in after the death of my grandfather in the 1970s. Having thus lost his birthplace and the home he grew up in, my father feels like he lost the one place that he could call his own. Now in his 60s and having moved back to Kerala after retirement, he feels this loss sharply. Though I cannot wholly comprehend nor explain the ways in which this affects him, I feel the sadness that comes from being disconnected from one's roots and the lands where one grew up.

While I was growing up in Trivandrum, far from the river, we would sometimes visit my father's relatives who still lived by the riverside. I have vague yet fond memories of spending time at the river's banks with my father. Once we were sitting by the banks of Bharathapuzha, the sun reflected off its golden sand, when I noticed several pieces of broken pots and bone fragments that lay mixed in the gravel of the river. I was explained to that as followers of Hinduism, we followed the custom of pitru-tharppanam for the salvation of the dead man's soul. Among other rituals, it involves floating down the river bones picked off the funeral pyre in sealed earthen pots. I imagined that someday my father, too, would be a part of the river like his forefathers before him.

Having spent my childhood away from the river, my life after school took me even further away, to Delhi. There was a gap of about twenty years before I reached the riverbank again in 2018. What I saw then shook me to my core. Gone were the golden sands and the broken bones. The river before me was a ghost of its past - reed riddled and wild. People avoided the river, for they were scared of it. At some subconscious level, that I chose the river to be the subject of my final year project was a result of this change that I saw. As I engaged further with the river through the course of this project and learned more about it than I had in all my years in Kerala, I realised that my interest in the river was not impersonal. It was an attempt to return to a place that I had a connection to, and to understand and care for it. The fact that it was a connection that I had lost made the task more pressing. To rebuild the connection, I had to learn about the river, and learn the reasons for its degradation. I understood at the outset that the condition of the river was connected to the attitudes of people to it. I wanted to understand what had brought about the shift in these attitudes, and how exactly this shift resulted in the environmental destruction of the river.

That the project I charted out had as its output a film, is a result of my work in the IDC School of Design. Over the last two years, I have done several

projects that are related to the exploration and conservation of the natural world around us. Most of these projects have been in the visual medium, using photography and film. This film project has also been shaped by the design philosophy inculcated in me by IDC. I think it is crucial that through my work, I try to address the unmet communication needs of our country.*⁶ It is my belief that this approach to design becomes all the more effective if the content has a personal value for the maker.

In doing this project, I am also trying to explore how one might engage with our natural world and work towards its care through the mediums of visual design and communication. All the more so, since many of the factors contributing to the degradation of Bharathapuzha are'nt unique to this river, some are common to all 44 rivers of Kerala and some to all the rivers of the world.

Ch. 2 The Process: Fieldwork and Filmmaking

If I wanted to study the river and learn about it, I needed to find a way to do so. The project began with trying to figure out how I could engage with the river, how could I learn about it and what could my entry point be. And the difficult question, What aspect of the river should I be concentrating my attention on. I wanted to talk about the ecology and physical health of the river in the context of the recent floods. At the same time, I wanted to document the life of various communities along the river. As my initial goal, I decided to tell the story of how the river has changed its nature during the last few decades by documenting the lives of various communities that live along its banks. For this, I needed to have access or build relationships with members of these communities. It was unlikely that I would be able to do this on my own since many of these communities can be entirely closed to outsiders. And even if I did manage to get access, there are chances that I would be given surface information. To learn about their lives and their relationship with the river, I would need someone to act as a bridge between us.

Besides these, there were the more practical concerns of doing a project such as this. These included the travel, stay and food, local conveyance, a guide if possible, someone to help me with the filming, funding if possible, and so on. For reasons of access, as well as these practical needs, I realised I would need someone who could be a local contact through who I could work on my project. In this regard, I learned of the Vayali group, a local NGO, and their efforts to conserve the folklore of Bharathapuzha.

I contacted Vinod Nambiar, the director of the group, and learned more about their work from him. Vayali is a group of young people engaged in preserving the traditional and local knowledge systems of communities living in and around the banks of the river. Youth development is an integral part of Vayali's vision. Towards this end, they set up Vayalarangu, a platform where the youth from these communities can get together, practice, and perform local folk arts and crafts.

A sub-group of Vayali is the ViMA, short for the Vayali initiative for Media and Arts. This unit supports filmmakers and others who document and preserve the culture and lifestyle of people living in the river basin. Another of Vayali's sub-groups is TeNAG (The Nila Action Group), which engages more directly with the conservation of the river directly. Their efforts include bringing school students to engage with the river, by camping on its banks, by organising clean-ups, and so on. Vinod suggested that these two sub-groups of the organisation could form my initial support structure. Other than the fact that they wouldn't be able to fund my project, Vayali and its

members offered me the support I would need for this project.

2.1 Pilot Field visit, or Reconnaissance

During our first interaction over the phone, Vinod instilled in me the confidence to head out to the river banks to conduct an initial field trip, a reconnaissance, to explore the scope of the project. He promised me all the ground support and networks I would require. I headed out to the banks of Bharathapuzha within a few days, as soon as a reservation for a train journey could be managed.

During the first field visit of two weeks, much time was spent with craftspeople and folk artists who live by the river. The communities I visited included craftsmen like potters, metal workers, and mat weavers. Among the folk artists, I engaged with were the Pulluvans, worshippers of snakes and performers of the Pulluvan Pattu, a ritual performance venerating snakes and snake deities, and Paanans, the quintessential bards who performed the roles of professional messengers, musicians, storytellers, verse-makers and oral historians in feudal times, and who now perform their singing and storytelling routines as folk artists. The people I met were all linked to the river in one way or another. The potter made his pots with clay from the riverbanks, the metal worker made his moulds with that same clay, the mat weaver sourced her straws from the river side, and the majority of temples where the folk artists perform are situated by the river. Many of the ritual performances are indelibly tied to the river and its structure. For instance, the Paanans participate in the vela (annual festival) in the Kavu on the banks of Bharathapuzha to receive blessings from the Bhagavathi.

Spending time with these people and learning about their connection with the river, I started to develop a relationship of my own and understand its importance to people, their livelihood, culture, and environment. As the condition of the river worsens, these communities and their ways of life are critically endangered. Besides the changes in the river, there have been social and cultural developments that render these traditional ways of life unviable, or undesirable for these communities. The younger generations of these artisan communities are not regular practitioners of the craft. Unlike their fathers and mothers, they have access to school and college education and are equipped with a very different sort of skill set. This, changing material conditions and the changes to the immediate environment, pushes the youth away from traditional forms of livelihood, and away from the river.

What I saw of the river in the towns was even more dismal. In many places the river is akin to a drain, stagnant at places, thick and murky elsewhere. Its basin is marked by a series of check dams for irrigation and drinking water purposes. It is a common sight to see reservoirs of stagnant water on either side of the bridges. But just after the bridges and the regulators, the river bed is bone dry. I wondered at the nature of this “illusion.” It appeared to me as though this business of filled rivers near the public eye was a cheap shot, only to appease the commoners who rushed past the river daily, in their motor vehicles, proudly living in a prosperous land of plenty.

The more time I spent by the river banks, the more I felt that the river discussed in poems and sung about in songs do not exist. I started to see that the condition of the river and the severity of the damage caused. I met and interacted with people who are experts on the river and its history. Dr. Rajan Chungat has written many accounts of folklore and myth surrounding the river. Abdurrehman Master is a historian who has done an in-depth study on the lower basin area, especially the harbour town of Ponnani. Interactions with them helped me gain different perspectives on the river, both cultural and environmental. I attended public programs in which people- citizens and administrators - discussed the condition of the river, efforts towards its conservation, and so on. Among the more important of these was the first-ever meeting of Friends of Bharatapuzha. It was notable for the presence of prominent public figures like the Member of Parliament VK Sreekandan, Member of Legislative Assembly VT Balram, Metroman E Sreedharan, Greenman Shobeendran, and Retd. Director-General of Kerala Police and Chief of RAW, Hormis Tharakan, among others. The meeting and the presence of public figures were an essential show of concern and solidarity towards the river. People from Vayali, and others I spoke to, were of the hope that these people would throw their weight behind the conservation efforts, and hopefully move things decisively in a positive direction.

2.2 Making Sense of the Engagement, Planning the Way Forward

Returning from this period of engagement, I needed to make sense of what I had learned during these two weeks and how to take it forward. I needed to define a more precise, sharper objective for a study of the river and develop a plan for further fieldwork. By this time, I had realised the deep connection between the condition of the river and its people. And that the best way for me to learn about the river was from people.

At the same time, I recognised that I could not document the lives of com-

munities by the river because much of their social activities were centered around the harvest season (May- June), and the shooting period I had set for myself was the end of monsoons (Aug-Oct). Even if Vayali could have helped me recreate some of these folk traditions, the financial cost would be too much to bear. Also, the time for further fieldwork that I had was too little for me, as an outsider to understand the life and aspirations of people and the social, cultural, political composition of the river basin. Thus, I had to limit the scope of my project to the environmental destruction of the river. However, even in this limited scope, I wanted to learn about the ecological crisis facing the river by learning about the changes in the lives and lifestyles of these communities. Even though I would not be able to understand the social and cultural lives of the communities in-depth, I aimed to understand how the changes in society, economy, and culture of riverside populations in the past three decades may have contributed to the degradation of the river.

Given the time and resources available, and the redefined scope of the project, I decided that a sizeable chunk of my learning could come from talking to people, and observing their relationship and interaction with the river. So, much of my subsequent, more prolonged fieldwork was about meeting people who were concerned about the river, involved in its conservation, or had a continuing relationship with it.

I grappled with questions fundamental to filmmaking: What I could and could not achieve through a film; How the camera would be a part of the process, How the form of the film corresponded to the objective of my study. In short, what would it mean to do research using film as a research tool? Working my way through these questions, I recognised that I wanted the film to have a social impact. I wanted people to recognise that our lifestyle choices are affecting the river adversely. And to nudge them to start to do things differently. I also wanted to speak about how we could reach out and reclaim the river and its flow. In that sense, the film would also have to be informative and educational. The people I considered as the primary audience for the film were the residents of the Bharathapuzha basin. The form of the film that I planned flowed from these objectives.

The fact that the majority of the people I spoke to, and the people I wanted as the audience were most comfortable in Malayalam made that the clear choice as the language of the film. The objective of being impactful and informative, I felt, could be fulfilled by adopting a nonfictional narrative, and a somewhat journalistic form. Conversations with people could be used to present information as well as opinions about the condition of the river,

and clear messages regarding its conservation. Visuals of the river, and of people's interaction with it would form the context for these conversations. This, I hoped to achieve through juxtaposing observational footage with the discussions with participants. It was a way to substantiate the narrative as well as help my audience retain the information passed on to them. By using observational material, I hoped to keep the audience engaged and elicit a visceral response from them.

The interactions that would form my longer fieldwork were going to take place in light of the increasing natural disasters. Two consecutive floods, 2018 and 2019, has exposed the state's vulnerability to disasters. Incessant rainfall, widespread landslides, and drought-hit summers are all on the rise in the Bharathapuzha basin. These disasters have made the environmental destruction of the river all the more real, even for those whose lives are not directly connected to the river. These events would have to form an essential part of the discussions I hoped to have with my participants. I wanted to learn from my participants:

- Their connection to the river.
- The changes that have taken place in the river in their lifetimes.
- The impact of these changes in their daily lives, and in their access to necessary resources such as groundwater.
- The factors contributing to these changes.
- The role of the participants in some of the activities or factors that are impacting the health of the river.
- Any efforts they might have made towards protesting harmful practices or conserving the river.
- Their suggestions for improving the health of the river and supporting conservation efforts.
- Their ideas for the way forward.

All of this was to be seen as an inquisition, or an exploration, and not an exposition. I wanted to take on the role of a concerned citizen trying to learn from people of the river and from subject experts what has happened to the river and what needs to be done for it. And I wanted it to be clear that while I am trying to present a rather clear message about conservation, the film is not a completely objective expression. Thus, I decided to be seen in the movie, to be present as the layer between the speaker and the audience.

It was also necessary to arrange appropriate gear for filming and fieldwork. The material I had access to, some owned and some borrowed, which I used in the making of the film, is as follows:

- Primary shooting gear - DSLR Nikon D750 (main camera) AF-S Nikkor 24-120 F/4 G ED VR Zoom lens, AF-S Nikkor 50 mm F/1.8G Prime

- lens, Nikkor 100 mm F/2.8D Macro lens
- Secondary shooting gear mainly for B-rolls - GoPro 7, Procus Rush 2
- Primary voice recorder - Tascam DR-10L
- Primary ambient sound recorder - ZOOM H1N,
- Accessories - Benro Tripod, Seagate 2GB external hard disk, Seagate 4TB external hard disk
- Software - FCP X (trial), Adobe Indesign (trial), Quip(trial)
- Hardware - Macbook Pro mid-2012, iMac 2017

With some of these ideas clearly articulated, I returned to the Bharathapuzha basin, for a more extended period of engagement, starting in September.

2.3 A Longer Period of Engagement

Bharathapuzha is divided into three parts - The upper, middle, and lower basin. I used this model to get to know the river better and map out a travel itinerary. A part of the upper basin is located in the higher reaches of the Western Ghats. This is where the original tribal settlers live. These lands were also parts of national reserve forests where entry of civilians are restricted. Apart from these regions, the rest of the river basin was open to exploration.

My knowledge about the river and life around it was still rudimentary. This field trip was supposed to be a two-month-long affair, and I had plenty of time to familiarise myself with the river and the customs of its people. I would often travel and engage in conversations with people without the intention of filming. I attended as many public events as I could and idled in public spaces like playgrounds and river pools.

Since I wanted to learn about the river through people, I started with those I had a closest established relationship with. This included people from the Vayali group, friends, and family members who live near the river. Members of the Vayali group acted as a point of connection, pointing me out to people I could meet and introducing me to them. I also managed to tap a network of school teachers across the basin through friends and family. Each connection I made resulted in further leads and contacts. Among the people I came across and spoke to, some were strangers, people working, or spending time in the public places where I happened to be. With these people, the conversations I had took meandering routes. We would speak about the river, of course, but through that also about the changing nature

of Kerala, its political and economic landscape, the recent environmental disasters, and so on. These conversations gave me an understanding of the social lives of the people who occupied the river basin. Other people I connected with through those I already knew. With them, the basis of my interaction was somewhat predefined. It was based on their work with the river, its conservation, and so on.

I was on a solo trip to film the river spread over thousands of acres, and to do it alone was impossible. This predicament forced me to interact with the public, even more, sometimes forcing me to do what I would have never otherwise. Though I am not what one would call introverted, interacting, and asking for help from strangers was a completely new realm. Even though a homestay was arranged for me by Vayali, I often found myself sleeping under the roofs of strangers. In my time there, I experienced the kindness of strangers. People agreed to meet me, a complete stranger, over a phone call, and have driven me around cities and to far-off villages even when they had no personal interest in the trip. Some, including total strangers, invited me into their houses, to live with them and their families for days together. I realize that the kindness they showered upon me was, in fact, their concern for their river.

In the film, however, there is an absence of women participants. This is something I was aware of, even as I was filming. However, my attempts at shooting the female members of the community were thwarted by chance or circumstance. The fact that I was a young male traveling alone, and sometimes with other men, didn't help my cause. I believe having a female field partner would have helped me get to that audience as well. Even so I shall note down the impressions the women I interacted with, left me with. Most of the women were shy to come out in front of the camera. They had their opinions and would have had no trouble with me recording their sound, but the idea of being photographed and filmed was not entertained. They would often lament about not being "presentable" before the camera. Men would not worry so much about their appearance or "image." This difference indicates a gendered idea of presence and presentability, but more specific to my concern, I feel like the women felt a necessity to match up to standards or appearance, set either by themselves or by society. Men, in general, feel less pressurised by any such standards.

Among the few women who agreed to speak on camera, one was unable to turn up for the interview as her daughter had fallen ill. Another had to rush to an emergency at a relative's. The working women who agreed to be filmed had longer working hours than the male counterparts and were un-

able to make time for the interview. Between cooking and other housework, children and school, commute and job, this group of women hardly had any time to give me, or themselves for that matter. Further exploration of the river begs that we take into account the relationship that non-male members of society, of different communities, have with it.

Through the fieldwork of two months, I experienced these varied kinds of interactions, some of which materialised into content for the film, and many of which did not. Even though I studied the river, observed, and filmed it, though my academic project and degree are near completion, I will always remember my stay in the basin as a time marked most acutely by kindness, friendship, and personal growth.

2.4 The Camera as a Tool for Engagement

Through all of these travels and interactions, I was accompanied by my camera, the DSLR Nikon D750.

Operating the camera and conducting the interviews by myself was a tiresome process. The bulky DSLR was almost always mounted on a tripod to get stable footage. Darting from the onscreen space from where I engaged in conversations to behind the camera from where I would record and back again resulted in a lot of silly mistakes. Sometimes, I conducted interviews without entering the recording mode on the camera. There were also times when the recording would stop by itself when the maximum duration of a single continuous video supported by my camera was achieved. Sometimes because of technical glitches such as these, and sometimes because of participants' perception of the camera, many things were said when the camera was not recording.

Some of these things were far more interesting and impactful than what was formally spoken to the camera. Thus, many casual remarks that provided greater insight could not be recorded and presented as part of the film. For example, a farmer I met in Chittur town spoke at length before the camera about his farming practices. However, after the formal interview ended, he casually commented about the systematic destruction of riparian forests by the village panchayats. They had done this to destroy the habitats of snakes and foxes, to ensure the safety of humans. This destruction has now resulted in an increase in the peacock population.* Birds that were once rare in this region are now the most common pests that farmers have to deal with in the paddy fields. This piece of information was not recorded, because he

spoke about it only as a casual addendum to the more formal, recorded interview. I have already talked about how many of the women I met were uncomfortable speaking before the camera.

Some of these issues could have been avoided if a cameraman was present in the team. For the other matters, I should have thought out and planned for audio-only recordings as a component of my film. But as it stands at this stage of my process, these pieces of knowledge to which there were no corresponding visuals present a challenge on how to make use of them when my medium is visual.

Another problem I had to deal with the entire duration of fieldwork and shooting was the disconnect between the spoken and the visual. Participants would often remark about the river bed being devoid of sand and the acute lack of water. But because I was shooting during the monsoon season, the scenes before me were quite different. My participants often spoke about communal events, performances, festivals, temple practices, and other such social interactions that make up the life of the river. However, none of these take place during the incessant monsoons of Kerala. These again were images that were missing, but which had been described in words by my participants.

There were also many joys of traveling with the camera. I was pleasantly surprised at the many ways in which people engaged with the camera. Many of them were complete strangers or people who I may not have been interviewing. I was often surrounded by a group of people who would stand behind the camera and observe the recording. Those who I did not have conversations with, engaged with the camera as a 'seeing' object. Seeing me recording the landscape, they would appear before the screen, performing impromptu dances, striking poses. It seemed to me that it was mostly the very young and very old who made up this group. Perhaps they were devoid of the apprehensions that others hold about the camera or were less concerned about how they presented themselves to an unknown audience.

The presence of a camera seemed to have great value for those who wanted to speak about the river, their engagement with it, and their efforts towards it. For these people, who had been actively engaged, sometimes at the risk of being hurt by others, in protecting the river, the camera was a welcome "viewer." It could ensure greater recognition for their work and their cause, bringing others to it, hopefully multiplying what at present were small, individual efforts. They rightly looked at the camera as an agent of change.

On the other hand, there were people who, when approached, expressed their discomfort in speaking to the camera about what they considered a controversial topic. Some of them felt that what they had to share was nothing more than ordinary knowledge and refused to participate.

2.5 Constructing a Film from Interactions and Narratives

During both sessions of fieldwork, I had been shooting without a script or a storyboard. I was hoping to build an informative and educational narrative, so I was not looking for twists in the plot and believed that the story would evolve from my travels and interactions.

At the end of my fieldwork, I had about 70 hours of raw footage. Though these were segregated by places that I had visited and people I had met there, I had not actually gone through the footage while on the field. The busy schedule of travel and filming did not give me a chance to make sense of the footage until I was back in Bombay and at the editing table. It was here that I had to parse through the material, see what I had gathered, (and what I had missed) and look for the narrative that might emerge from this material.

I began by making a listing of the things that I had learned, the things that I wanted to share with my audience. There were some common themes that my participants had spoken about. Many people had talked about the past of the river, its glory, and its beauty. Others had spoken about the changing socio-economic conditions of Kerala and how this affected the river. Many people talked about particular events or incidents that destroyed the river. Among these, there was the period from the 80s to the 2000s when vast amounts of sand were mined from the river bed. Some people also spoke about spates of industrialisation, the Gulf boom and the construction boom, and the impact of these events on people's attitudes towards the river.

Among all of these, I found that there were personal narratives that connected each of my participants to the river. Among these were stories about their past intertwined with the history of the river. The Paanan, or bard, spoke about growing up next to the river, grazing cattle by its banks and sleeping there. Ayyappan, a social worker of Kalpathi village, spoke of spending leisurely days by the river, fishing in it, and drinking its water. C Rajagopal, a writer in Pallipuram village, talked about the beauty of the river as he remembered it. Different people spoke about bathing in the river has been a regular part of their lives in the past.

These were stories of connection and connections lost. Mustafa, a fisherman of Kudallur village who took me on his boat across the river, spoke about how he no longer drank the water in which he fished, whereas earlier he would just scoop some water in his palms and drink it, or fill it in a vessel and make tea with it. People told me about how women no longer come to the ghats to bathe, as they commonly did earlier. The changing face of the river and the presence of unwanted men keep them away.

I came across spaces that echoed this sense of a lost connection. Chandran PT, a retired school headmaster of Naduvattom village, took me to a part of the river, which had earlier been a place for his friends and him to hang out. Now the sand was gone, the area was overgrown with weeds, and littered with plastic wrappers and broken bottles. These spaces seemed to speak of the history of the river, its abandonment, and its destruction. The most poignant of these was the now dysfunctional Bharathapuzha railway station. Once a functional station named to symbolise people's respect for the river, what I saw was an abandoned building where no trains stop.

The stories indicated what people had lost as the river's condition degraded. For some of them, losing the river and being unable to access, it was like losing an old friend or a part of their past. For some others, primarily the craftspersons, the loss of the river was symbolic of the changes in society that were leading to their own degradation and that of their craft. Weavers in Eravathody village, once famous for its cotton handloom, complained about how people were happy to sell power loom fabric as handloom, and young people no longer wanted to learn to weave.

Among these were narratives of having tried, or continuing to work, protecting the river, to restore its flow and basin. Raveendranath Anayath (lovingly called Raviman), a retired school headmaster, recounted incidents of when he tried stopping lorries illegally collecting sand from the river banks. For this, he suffered the wrath of the sand mafia who sued him on the pretense of having used a caste slur against one of the lorry drivers. He spent several years trying to prove his innocence in that case. Guruvayoorappan, a wildlife crime investigator, told the story of how he and his friends were nearly run over by a lorry of the sand mafia while planting cuttings of screw-pine near the boundary wall of his college, 26 years ago. We visited this place together, which has now grown into a veritable forest. To see this was very moving for him and, in extension, for me. There were also stories of people trying to restore their and others' engagement with the river. Zainuddin, a school teacher, and Dr. Narayanan Nampoothiri, a practitioner of

Ashtavaidya Ayurveda, both from Thiruvegappura panchayat, continue to bathe in the river, encouraging others to do so. His efforts are driven by a desire to maintain the role and position of the river in their daily lives, and by the recognition that this loss of connection drives apathy.

Through these stories, I was able to see a narrative emerging, one that told the story of people's relationship with the river, the degradation of the river, and the attempts to reverse or mitigate the degradation by rebuilding the relationship.

And I added to these narratives pieces of information about the riverine ecology that I had gathered from my interactions with environmentalists and activists and the several public programs that I had attended. Some of these interactions point out gaps in our conservation efforts and our scientific knowledge about the river and riverine ecology. They suggest ways to tackle the current problems ailing the river.

To inform the audience about the condition of the river, I looked for and selected visuals that would convey the state of the river as best as possible, given its monsoon abundance. Some of the scenes that my participants spoke about - the banks riddled with weeds and litter, the visible signs of the last monsoon, the furious construction taking place by the river banks - my observational camerawork had gathered visuals of these. These were spaces that had been created because of the denuded condition of the river, or whose creation was contributing to the river's poor health.

One of the most interesting, and to me, the most eye-opening outcome of the process was to see 'caste' as a tangible factor in the river's condition. Through the interactions I had during my fieldwork, there were many, though scattered, mentions of the caste system among the communities I interacted with. The myths, lores, and rituals attached to the river, also referred to the caste of the characters that populated them. So, during the fieldwork, I had started to become aware of the ways in which caste was tied in with the story of the river.

However, it was when I started to go through and piece together video clips and narratives that this factor became perceptible as an element of the story. This became significant learning for me, and something that the people at Vayali nor I had thought about or articulated as an issue connected to the conservation of the river. It struck home that the social lives of people living along the river are not separate from the environmental issues that the river faces.

All of these narratives, information bytes, and snippets were arranged in a timeline, overlapping bits were removed, edges trimmed, and connected. The attempt was to construct a telling that made logical sense for the viewer, enabling them to follow the chain of thoughts and events easily. In putting together these pieces, my primary objective was to create a smooth transition from one topic to another. Here, the narratives around caste presented a challenge. To most of my participants, the idea of caste is separate from the issues plaguing the river. Hence whenever they spoke about caste, it was not in relation to the river. And so, even in the film, it remains a separate entity - present but not entwined with the rest of the narrative. In some ways, this is symbolic of how people see caste in Kerala today - as something separate, and for the upper caste, as something that is long gone. The decision to keep the narrative of caste as the last segment was to leave the viewer wondering why a movie about a river ends by reminding them of the feudal age and its oppression. It stays as an addendum for the viewer to ponder over while working towards their more immediate and stated concerns - the health of the river. Even so, the question of how to tell the entwined stories of caste and Bharathapuzha with the material that I have remains a challenge to me. I am, for now, only partially content with the current structure of the film.

Ch. 3 The River Nila

Bharathapuzha (250 Km) is one of the 44 rivers in Kerala. Though the river has many tributaries, it is generally accepted that the river originates from the Anamalai range of Tamil Nadu in the Western Ghats at an elevation of 2,336m and flows through Coimbatore district of Tamil Nadu, and Palakkad, Malappuram, and Thrissur districts of Kerala and finally empties into the Arabian Sea at Ponnani.⁷

Nearly one-eighth of the total population in the state depends on the river for various resources. The upper reaches of the watershed consist mainly of agricultural land, a few water bodies, and forestland. Agricultural land, forestland, and wasteland occupy the middle region, while the lower areas are covered mainly by agricultural land and to a lesser extent by water bodies.

The river is extensively dammed, and there are six reservoirs along the course of the river, and more are under construction. This is excluding the many check-dams/regulators built in the river, sometimes as close as a few hundred meters apart for water for human consumption and irrigation. A recent study conducted in the catchment reported that in the last couple of decades, the catchment is under rapid urbanization process.⁸

3.1 History of Kerala tied to the History of the River

Geographical features have a crucial role in the history of an area. Humans migrated from place to place and later settled in one place. The history of the river Bharathapuzha is the history of migrations and immigrants.

The banks of the Barathappuzha are one of the first sites of inhabitation in Kerala. The area is very rich in megalithic structures like dolmens, post-holes, hood stones, umbrella stones, and rock-cut caves. Archaeologists have discovered a pre-historic necropolis (cemetery) with megalithic cairn circles dating back 2,500 years, many 'postholes' that probably point to the ancient practice of 'excarnation,' a 'wood-henge'-like a ritual monument and a site of primitive astronomical intelligence at Anakkara, near Kuttippuram in Malappuram district. Experts believe it is a promising site to study the Early Iron Age culture in Bharathapuzha.⁹ Laterite rock-cut caves have been noticed at the Tavanur area in Ponnani taluk, and megalithic sites, including a burial site, have been noticed in the Pallavur area in Chittoor taluk.

During the first centuries of AD, the banks surrounding Bharathapuzha was the part of old Tamizhakam. So, the socio-economic and political system of this period also reflects the history of the river. After the 3rd century, the socio-political system of old Tamizhakam underwent a change, and the Chalukyas, Pallavas, and Pandyas became prominent power in Tamizhakam. Not much is known of this age, and it is considered as a dark age in Kerala history.

Around this time, Jain and Buddhist religions reached Kerala from North India, and Brahmins migrated to the riverbanks through Malabar and Palakkad area. This was a period of migrations from North to Southern states (like Karnataka, Tamil Nadu, and Kerala) and spreading of the Vedic Hinduism.

In the 8th century, there was another large scale migration of Brahmins from Karnataka and beyond to Kerala, and this migration was to change the face of the river and Kerala. Around this time, Kerala became a special political and cultural centre under the Chera kingdom. The trade and commerce of the Chera Kingdom in this part flourished by the river, which emerged as a highway of communication and trade from Karur (in Tamil Nadu) to the harbour town of Muziris. The expansion of agricultural activities and settlement patterns, the increasing domination of Brahmins, division of caste-based on the occupation, and the rise of a social order based on the administration of temple complex were the result of this Chera rule.

After the 12th century AD, the Chera kingdom shattered, and many royal dynasties came into existence. These smaller swaropams* that emerged on the banks of Bharathappuzha. Calicut turned out to be the significant power among these small states. The Zamorins started commerce with Arabs and Chinese in Calicut port. They began to conquer neighbouring kingdoms and expanded empire. The main aim was to capture the natural resources because their chief city Calicut was unfit for agriculture. In stark contrast, the river he seized from Valluvakonathiri was the most fertile land for paddy cultivation and was rich in forest resources and hills for cultivating pepper. During this period, the Zamorins were the rulers of the northern banks of Bharathappuzha, and the Cochin kingdom was the ruler of the southern banks of the Bharathappuzha.

Vasco da Gama reached Calicut (Kappad) in 1498, and this led to the starting of modern European colonialism in Kerala. The history of Kerala from 1500-1800 AD is the history of the conquest by Portuguese, Dutch, French, and British, mostly for the monopoly of the spices business.

On the whole, the migrations into the land of Kerala contributed to the development of the history of the region.

3.2 Nila as a Social and Cultural Entity in Kerala

Bharathapuzha is considered the crib of what is today, Kerala's culture and social structure. The historical migrations of Kerala led to the composite and complex social formation. Over the centuries, several races and communities have made their contribution to the building up of the composite and pluralistic culture of Kerala. There are three kinds of settlements in the Bharathappuzha banks.

The first one is the earliest inhabitants of the land from the hilly forests on the banks of Bharathappuzha. The Velar, Kuravar, Ayavar (later known as Uzhar and Pulayar) migrated from the deep forest and settled on the river banks and began cultivation. The second one is the Brahmins batch, who reached Kerala in BC 3 Century. The Brahmin settlements grossly contributed to the history of Kerala. The third one is at the beginning of the Aryan invasion of north India, wherein the Dravidians joined their kinsmen such as the Nayars, Vellalars, Kammalars, and Ezhavas, etc.

There is a popular myth that Kerala was a gift to Brahmin order by Parasuraman, one of the incarnations of Vishnu. This origin myth was used by the Brahmins to keep other communities submissive and subservient. Around 7th century AD, the Brahmin settlement became one of the most prominent groups in Kerala and, to date, occupy the highest position in the caste hierarchy and social order.

It is evident that the banks of Bharathapuzha, being fertile, attracted all communities from ancient times. But the tribal and indigenous communities who were the inhabitants of the banks and hilly terrains of Bharathappuzha were replaced or subdued by the migrants who brought with them the Aryan Varna system. The higher social standing of new migrants encouraged immigration into Kerala soils and expanded the agrarian economy. As a result, the social hierarchy emerged by incorporating the native hierarchical system with the Aryan Varna system.¹⁰ By the late nineteenth century, the caste system of Kerala had evolved to be the most complex to be found anywhere in India.¹¹ There were over 500 groups represented in an elaborate structure of relationships, and the concept of ritual pollution extended not merely to untouchability but even further, to un-approach-

bility and even un-seeability.¹²

Bharathapuzha has molded knowledge, beliefs, customs, practices of various communities that reside in the basin and beyond. Historian and writer, Dr. Rajan Chungath advocate the legend that Bharathapuzha and Kaveri were connected in olden times and a well-established trade route between the east and west seashores of South India existed. Muziris Port was one of the major trade ports in the ancient maritime world together with the seaport of Tyndis at Ponnani, which is the mouth of the river Nila. Kerala's coastal magnificence had made it a legendary maritime hub for traders from across the world dating all the way back to the first century AD. Its majestic shipyards, known by the iconic Urus, have been amid intense shipbuilding and maritime trade over 1500 years.¹³ The banks of the river have been a melting pot of various cultures since then.

There are several famous Hindu temples like Thiruvilwamala Temple, Thirunavaya Nava Mukunda Temple, Chamravattam Ayyappa Temple, Yagneswara Temple, and Panniyur Sri Varahamurthy Temple on the bank of Nila. The stringent adherence to the ancient practices of worship and the sanctified atmosphere ensures that this temple centric culture of yore commands a special reverence in the mind of the Malayali devotee who enters a different world when in temple precincts even today. Naturally, admiration and worship are extended to the river also. Other religions have also marked their presence in the riverside since olden times. Some of the famous mosques include Ponnani Juma Masjid, Cheraman Juma Masjid. Legends say that Malik Bin Dinar, one of the first Arab propagators of Islam to have come to the Indian subcontinent and built the Cheraman Juma Masjid in 629 CE, not just the first mosque in Kerala but the subcontinent itself.

Apart from these religious significances, the river also occupies a cultural space of esteem in the minds of all Malayalis because it has been written and sung about far more than any other river in Kerala. Bharathapuzha has captured the imagination of countless artists who grew up in the regions near it. The river has been the creative muse for many illustrious Malayalam writers like M. T. Vasudevan Nair, V.K.N., and P. Kunhiraman Nair. Poet Vallathol, who had a bond akin to a spiritual one with the river, established the reputed centre for performing arts, the Kerala Kalamandalam, at Cheruthuruthy, in Thrissur district on its banks. It is a major center for learning Indian performing arts like Kathakali, Koodiyattam, and Ottamthullal. The birthplace of famous Malayalam satire poet and founder of the Ottamthullal art form, Kunchan Nambiar, is located at Killikkurissimangalam.¹⁴ Tholpa-

vakoothu is a shadow puppet play mainly performed in the temples and is unique to this region.

Like all river valley civilisations, Nila set a fertile ground for arts, craft, literature, and tradition to flourish on her banks. Maybe the river, due to plentiful and excess bounty, allowed people to pursue creative inclinations other than farming. It is in playing this role that the river transforms into a collective celebration of people and their artistic aspirations. Perhaps this is also why rivers are revered and considered sacred across the world. They nurture everything that seeks them.¹⁵

3.3 The Current Situation of the River: Its Degradation

The Bharathapuzha river basin, once endowed with dense vegetation and abundant water, has been experiencing acute water shortage and extreme climatic conditions in recent times. Sand mining and unsustainable exploitation of natural resources have caused a dying state of the river during the summer season. Some native life forms, including fish, reptiles, mammals birds, and plant life is now critically endangered, and some are extinct. The extreme sand mining in the last 30 years has made the thick sand bed to be replaced with grasses and bushes, leading to an environmental catastrophe.¹⁶

Meanwhile, people were also abandoning their agriculture/plantations due to inadequate returns. However, the sudden rise in the real estate market attracted lots of people to invest money in building construction as well in tourism ventures. For the high demand for building construction, large residences, many low-lying lands, and wetlands at several locations nearby the main river, as well as its tributaries, are getting filled up and converted. A rapid growth in real estate business was observed in the state since the late nineties. Conversion of wetlands to households is a usual practice in Kerala. Most of the agriculture belts of the river basin were legally converted as housing plots before the Land Acquisition (amendment) bill (2007).¹⁷ 59.44% of the paddy cultivation disappeared in about three decades. Studies say that the main reasons for the reduction in the area under paddy cultivation are water scarcity, lower profit, labour shortage, frequent attack of pests, use of paddy fields for cultivation of more profitable crops, and conversion into built-up areas.¹⁶

The river is on the verge of extinction. In many places, the river loses its

real shape and structure. The ailing river has affected the lives of people along the basin area. A drastic increase in urban areas, deforestation, sand mining, and a decrease in natural vegetation in the area might have caused a rise in temperature and a reduction in rainfall over the area.¹⁸ Urbanization always involves growth of infrastructure; buildings, roads, communication facilities, etc. The construction of dams across the river, widespread encroachment along with the river courses construction of road networks, and boom in the real estate business all give acceleration to the virtual death of the river system. All of this emphasizes the need for a scientific management plan for sustainable development of the Bharathapuzha River basin, keeping guard of its ecological setup, environmental resources, and ecological services.¹⁷

Ch. 4 The People of the River

The majority of my learning about the river came from the people that I met as I journeyed along with it. Among these were ecologists and activists, poets and writers, farmers, fisherfolk and craftspersons, and construction workers migrated from the northern states of the country.

Some of these people, such as the potters, weavers, sand miners, farmers, and fisherfolk, have been traditionally dependent on the river for their livelihood. Their lives are materially affected by the degradation of the river.

Some people are concerned about the river and actively involved in its conservation but are not materially dependent on it in their daily lives or for their livelihood. These people, in different ways, have made individual or collective efforts to protect small patches of the river and its banks.

And finally, there are people who have an increasingly fragile connection to the river. They interact with the river, either as a cultural entity or as a material resource, sometimes through rituals and at other times, for leisure. Their material connection with the river, though, is mediated by the implements of modern living, and thus, their association with the river is one of somewhat disjointed.

For the purpose of analysis, I have roughly categorised my participants into four groups based on their relationship and interaction with the river. These groups have fluid and blurry boundaries, but there is a common core that defines each group member's relationship with the river.

4.1 Present, but Distant

These are people who, we could say, make up the majority of the population in cities and towns along the river's banks. This is the urban and peri-urban class for who, the river is a constant, but often forgotten entity. Their livelihoods and employment opportunities are often disconnected from the river. For some of them, who work in industrial units or in building and construction, their livelihoods are antithetical to the health of the river. This unresolvable contradiction further exacerbates the disconnect between their everyday lives and their environment.

For some of the people in this group, the river is part of their livelihood, but they are not dependent on it. Neither do they have ownership over the river that they might call out its degradation or work towards its conservation. This includes groups of migrant workers who have moved into the river ba-

sin looking for work, generally in construction or agriculture, as the wages offered in Kerala are far better than those in their home states. In the course of my fieldwork, I met workers from the states of Bengal, Tamil Nadu, Bihar, and Uttar Pradesh. They, too, are present, often working on a bridge or a check dam on the river, yet they are disconnected from it.

For all the people in this group, their material dependence on the river is of the most basic kind - like water for drinking, cooking, bathing, and all other purposes. However, this connection is invisibilised or, at least, easily forgotten since the water is delivered to their homes through pipes and pumps of the municipal system.

They interact with that river through sitting and strolling by its banks, fishing in it as a leisure activity, chilling with friends, and drinking alcohol in the shaded groves along with it. The river is very much a part of their landscape but is often marginalised because it does not directly affect their lives anymore. The degradation of the river is something for 'others' to think about - the conservationists, and the government.

Some of them feel a sense of concern for the river. Others feel a sense of despondency that often settles into apathy.

While many of the people I would place in this group approached me as I filmed and were openly curious, some even excited, to be recorded on film, they were uncomfortable speaking on camera about the river. Some expressed shyness in speaking. Others felt unsure about speaking 'on record' about a subject they didn't have conventional expertise on.

Reflecting on these reactions, it makes me think about how being seen on camera is comfortable for many people, maybe because of the prevalence of screens and user-generated images and video content around us. But at the same time, the camera is perceived as a tool for 'official records' or is so closely tied with the image of the 'media.' Even though I introduced myself as a design student, I was still seen by some as "from the media." There is also the perception that because this is a permanent record of sorts, one needs to be articulate and knowledgeable about what they say. In that sense, in speaking about certain subjects, the medium of film performs a role that is similar to the written record.

Whatever may be their reaction to the camera, there was prevalent among the participants from this group, the idea that speaking out about the degradation of the river, given their relatively precarious condition, will not help

the river but might bring more harm to them. This may be because, for many of them, their employment opportunities are based on the industries in the area, which are directly or indirectly responsible for polluting the river.

Those who did agree to speak on camera, which was few, expressed a mix of despondency, apathy, and anger at the government for failing them and their environment. I also perceived a general disconnect from conservation efforts and conservationists as 'others,' people different from them, whose work required that kind of engagement.

4.2 Materially Connected and Impacted

Then there were people whose everyday lives and livelihoods are connected to the river and quite directly dependent on it. People whose occupations include farming and fishing are obvious members of this set. And there are people who are engaged in different crafts, in which they use material from the river. As I had mentioned earlier, this includes potters, weavers, mat weavers, bards, and other folk performance artists. For these people, the river has been a source of sustenance in different ways and continues to be so. Metalworker Shivaraman spoke about how they import clay from Salem to make moulds as the local clay by the river now contaminated with runoff from farms lacks the ability to withstand extreme heat. Mat weavers of Killimangalam complained about having to import Kora (sedge grass) that is used for weaving mats from Chittoor as they are no longer available locally. It was only in 2006 when UNESCO recognised the tradition of mat weaving by giving seal of excellence for the unique design called pallakuzhi paya (mat).¹⁹

The changing patterns of some of these livelihoods have also had an adverse impact on the river. For example, in the last decade or so, farming practices have seen drastic differences. Paddy and wetlands have given way to construction sites, and hillsides have given way to cash crops. Whereas farming was an activity tied to life itself, today industrialised modes of farming prefer to do it in the upper basins of the river away from people who can monitor them. They employ the use of indiscriminate chemicals. Pesticides like urea and endosulfan are causing health hazards. In the case of chemicals like endosulfan, diseases are only manifested in future generations. The fertilisers cause eutrophication in the river and lead to the algal blooms. Algae produce toxins that are harmful to higher forms of life like fish, and the diseases are passed along the food chain and affect any animal that feeds on them. It wouldn't be wrong in saying that every produce cultivat-

ed, reared or caught along the basin is loaded with chemicals detrimental to not just humans who consume it, but nature itself.

A similar pattern can be seen in the relationship between sand mining and the river. People have always mined sand from the river banks for the construction of houses. However, in the past two to three decades, the amount of sand being mined increased exponentially. At one point, truckloads of sand were taken from the riverbank every day. Some of this was legal, as per the licenses are given out by the government, and much of it was illegal. Those working in the unlawful sand industry prospered, buying sand at literally dirt low prices on government licenses, or taking it for next to nothing through illegal means. The prosperity of the sand industry resulted in severe denudation of the river's ecology.

The impact of such activities and changes on the health of the river are recognised by some and ignored by others. For example, a sand miner that I spoke to, Hamsa of Kondayod village, spoke harshly about the practice of sand mining and its role in the degradation of the river. Though he complained about how the shift in farming practices and the ever-increasing demand for irrigation is affecting the flow of the river, farmer Krishnan, who I met in Chittur town, doesn't believe that using pesticides has any negative impact on the river.

Many of these communities, particularly the craftspersons and the folk performance artists, have folk tales and origin myths that connect their migration to Kerala or the origin of their craft to the river. For instance, the weaver Mantri from Eravathody village told me the story of how their community came to settle by the banks of the river. Mantri said to me that his ancestors ran away from locales ahead of Pollachi in Tamil Nadu to escape cholera, an infectious disease that causes severe watery diarrhea and can lead to dehydration and even death if untreated. There is, interestingly, more than one version of this story, and different versions are told in different places. Another weaver, Venkataramanan from the neighboring town of Kuthampully, who now sells power loom fabric, told me a grander version of the story. Venkataramanan says that his community was brought in palanquins from Mysore to directly serve the kings of Koci and Calicut. He adds that it was during this travel that his ancestors saw their village and identified it as the ideal location to practise their craft. Like the weavers, the potters also have a story that tells of their migration from Andhra Pradesh to Arangottukara in Kerala. Gopalan, a traditional potter, speaks a language that isn't Telugu nor Malayalam at home. His rituals and customs, which are not typical to the region, points towards the history of his migration. He has heard from

his parents that they came and settled at the banks of the river because it was a burgeoning center of commerce where a potter could find all he needs - clay, firewood, and market. These stories indicate the importance of the river to their material lives and to their sense of identity and belonging.

The very activities and tasks that these persons perform as part of their craft have a historical and cultural connection to the river. In that sense, not only their cultural identity but their identity as workers and performers is tied to the river. To me, this was most evident in the case of the Paanan, or traditional bard. In feudal times, the task of the bard was to deliver messages, sing songs, make verses, and perform rituals to rid the Brahmin's house of evil spirits. He could be called on by the local Brahmins and Nairs to deliver a message at any given time of night or day. Since going along the river or across it is the easiest way to travel, and most destinations were near the river as people settled around it, the bards were very familiar with the river. Some of the rituals they perform, such as the prayers they offer to Bhagawati, are performed on the river.

The changes in the ecology of the river have meant economic and cultural shifts in these communities. As weaving, pottery, or farming become increasingly difficult and less lucrative, the youth are moving away from these livelihoods. And with this, their patterns of everyday interaction with the river are also changing. Before the construction of bridges, every hundred metres along the river, people crossed in boats to the opposite bank. The wharf was usually a crowded place, a local spot for gossip and leisurely activities. The ferryman was a vital member of the community. In all my travels, I couldn't find a ferryman today. It points to ways of life that have become extinct in twenty years.*

This sort of shift in livelihood and forms of interaction shift people from being closely connected to the river, to being somewhat disconnected. No longer dependent on the river for their livelihood, the river becomes just another element in the landscape. This disconnect means greater apathy or less care for the river. As Paanan's son Sounder says, "to conserve the river is everyone's responsibility, but we no longer think about it. Why others, even I don't think about it."

An important thing that I learned from my engagements with these participants is that the material degradation of the river sets of an infinite loop of sorts. As the river's resources deplete or get contaminated, traditional livelihoods like weaving, pottery, and agriculture coming either become unviable or take on an industrialised nature. With the industrialisation of these crafts, processes are created, which further impact the ecology of the river.

And with a slowdown, the people involved in these works move to other forms of livelihood, most likely those that are disconnected from the river, or antithetical to its health. In either case, people lose connection with the river and move towards forms of living, which are either unconcerned with the river or have a negative impact on it.

4.3 Concerned and Active, but not Materially Affected

In my travels and interactions I met several people who are concerned about the river and are trying to work towards its conservation. Here, I would like to elaborate on one such set of people, who I place together as people whose concern has driven them to take small but brave individual measures towards conservation. I see these people as different from the activists and environmentalists, who I shall discuss later, partly because they do not see themselves as activists. And more importantly, because their acts of conservation lack the kind of organised work structure and background support that activists have. The individual nature of their efforts has been critical in defining what they can do, how they do it, and the challenges they face.

The thing that most obviously defines these participants is the various small but ongoing acts of conservation that they have carried out over the years in small patches of land, or small parts of the river. Among these are the retired school teacher Raviman who, for many years, railed against the truckers carrying loads of sand from the river bed. And the poet Kavi Raman, who has been writing and speaking publicly about the river, urging people to see it as a material entity that is crucial to our survival, and not only as a representation of Malayali culture.

Besides their singular efforts, what stood out for me about these participants was the knowledge they possess about the river, its place in the minds of people, its cultural significance, and, most importantly, to me, its deep connection with the social and economic lives of its communities. From them, I learnt how social, economic, and cultural changes in Kerala over the past few decades were related to the condition of the river.

Many of them, including Kavi Raman, pegged great importance on the economic change that came about in the lives of many lower and lower-middle-class Malayalis with the "Gulf boom." The Gulf boom is a term that is commonly used to refer to a wave of migration from the 1970s onwards, of people from Kerala, to the Middle East as itinerant workers. Many of those

who migrated, at least initially, were from the working and lower-middle classes. The remittances that they earned, and sent back home, shifted their economic positions considerably, enhancing their household income, and contributing significantly to the economy of the state.*²⁰ As Kavi Raman explained, the economic changes that came with the Gulf boom shifted the social structure of the local communities. The migrant working class that had now gained considerable financial capital longed to access the social capital that had been denied them for so long. One manifestation of this desire was to break away from the traditional ways of life, which, anyway, for them, had held little promise of dignity or comfort. They attempted to construct social capital through material means, such as building large and sometimes rather opulent houses.

These changes directly affected the relationship of the population with the river, and their impact on it. For one, as Krishnadas pointed out, the everyday interaction that people had with the river, through using its water for needs such as bathing, washing, and drinking, became a part of the life they were trying to leave behind. And the trend of building large, opulent houses contributed to the construction boom that was to follow, and which today, has taken on the form of a juggernaut. Many of my participants emphasised the ongoing impact of the construction boom on the river and the general ecology of the region. The surge in sand mining was a result of this boom. Besides, today, many high rise buildings are being made next to the river, many of them encroaching on the river's floodplain.

Some participants also spoke about the rampant corruption in the administration and bureaucracy that enables the unchecked construction of buildings. Ayyappan pointed out the tallest flat complex along the riverbanks, which juts into the river, that is rumoured to be owned by the relative of a prominent politician of the area. Whatever may be the case, it is widely agreed that the rampant construction of middle and high-income housing is severely damaging the health of the environment in general and the river in particular. In addition to claiming the river's land and its sand, the filth from these buildings is allowed to flow unchecked and without sanitisation, into the river. He also mentioned how in some places along the river, people who bathe in the river developed skin conditions, especially in summers, when the flow of water is low.

Some of the participants, such as C Rajagopalan, a writer, also pointed out the alienating effect of standardised education on people's relationship with the river. The education, he claimed, does not teach you to connect with the river even though it teaches you about rivers.

All of these factors, as I put them together, point to a growing alienation between people and the river. And this, this set of participants claim, might be the most significant cause for the river's death.

In spite of these seemingly insurmountable hurdles, for most of these people, efforts towards conserving the river carry on. Raviman plants clumps of bamboo in the portion of his property that abuts the river. These clumps prevent soil erosion. In the last flood, he says, the flood did not destroy the part of land nor the flora on it, where his bamboo clumps were planted. These people, and the others that I place with them here, have often faced backlash from others, sometimes in the form of explicit violence or the threat of it. And sometimes it is their projects of conservation that have been devalued or destroyed by others. As individuals who work on their own, performing scattered acts of protection, they and their projects occupy a precarious position. Institutions like the state or collectives like the kind activists and NGOs have access to are, for the most part, unavailable to them.

One of the things that may not protect them but enables them to continue their efforts is that they have a certain capital. For some, this capital is socio-economic, and for some, it is cultural. They are all Malayalis, most of them from the middle or upper strata of the caste ladder, and most of them possess some land by the river. In some cases, this is the same land on which their houses stand. C Rajagopalan, for example, practices farming along with his brother, rearing cattle on a patch of land that he owns. This is, in his own words, an act of protest that he can carry out against the changing nature of society that moves farther and farther away from its natural environment and specifically, the river. However, Rajagopalan is not materially dependent on this farm or the river. Neither are Kavi Raman or Raviman dependent on the river as absolutely and directly as the potter Gopalan, the mat weaver Prabhavathy are. This is one factor that sharply divides those who are concerned about the river. The Paanan, the potter, the small scale farmer, simply do not have the kind of access or social capital through which they may materialise their concern into tangible acts of environmental conservation.

There is, therefore, in the story of the Nila, a deep connection between class and conservation. And also what I see as the relationship between caste and conservation. Among the most basic ideas of the caste system is that it relegates those who do manual, physical labour to the lower echelons, whereas the higher rungs are occupied by those who do intellectual labour. In general, craftspersons, and in this case, the folk artists Paanans and the Pulluvans too, are categorised as lower caste. In contrast, most - but

not all - of the people I met who have been working towards individual acts of conservation are teachers, poets, writers. Many of them are from among the upper castes. Those who are not, such as Chandran PT possess social or cultural capital in the form of education or a middle-class profession.

This leads me to think that the disconnect between being materially dependent on the river and acting towards its conservation is not a coincidence, or specific to the few people that I interacted with. How can someone like the Paanan, the potter, the weaver, the fisherman, persons whose lives are increasingly precarious, undertake efforts such as those taken by Raviman, or Rajagopalan. They have hardly any access to lands where they might carry out their conservation projects. And they have even lesser protection against those who might want to harm them or their projects. None of this is to suggest that they are without agency or do not speak out - the Paanan and the weaver, Mantri have been amongst my most vocal participants, speaking about the issues and the agencies responsible for the denigration of the river and that of their lives. Nor do I want to reduce, in any way, the value of the work of the other set of people - Raviman, K Krishnadas, and Kavi Raman. Many of these people are very aware of the class and caste differences that mark Malayali society and the impact of these structures on people's relationship with their environment. It was, in fact, from some of the conversations that I had with Kavi Raman and, that I first started to articulate these connections.

4.4 The Visible and Pro-Active

The fourth group in which I place some of my participants are what might be called ecologists and activists. Many of them, such as the Youth Congress president of Palakkad District, Boban Mattumantha, and activist Arumughan Pathichira are actively involved in understanding the river, its ecology, and the social and economic structures around it. Some of them are environmentalists and actively invested in saving the river and advocating for it. All of them, we could say people who have dedicated themselves fully to the cause of the river and its conservation. It was from this group of people that I learnt most about the ecological condition of the river.

Among these are the members of the Vayali group, led by Vinod Nambiar, who was also my first and central point of contact through the course of this study. Interestingly Nambiar is not a trained environmentalist but instead is a software engineer who actively took up the cause of the river because he believes in its centrality to the culture of Kerala. He was troubled by the idea of losing the many art and craft forms that thrive by the riverbank, and so,

started Vayali as a group that aims to rejuvenate these, and in the process, rejuvenate the river. For me, Nambiar represents those whose approach the conservation of Bharathapuzha is premised on its value as a cultural entity.

At the end of this spectrum, we could place Dr. TV Sajeew, an entomologist at the Kerala Forest Research Institute (KFRI), from who I learned about the nuances of the river's ecology and the complexities of its current condition.

But even though they are specialised in one area of knowledge and that forms their primary approach to conserving the river, they are very knowledgeable about other aspects of the river's life. Many of the people who I place in this group, such as Arumughan, spoke about the changing socio-economic conditions of Malayali society and the impact of these on the river. In fact, alongside Kavi Raman and Zainuddin, it was through conversations with Dr. Sajeew that I developed an understanding of the link between economic and social capital and the condition of the river. As I have mentioned earlier, he has also written an insightful report on the impact of unregulated quarry mining on Bharathapuzha.

The breadth of their knowledge is impressive in itself, but more importantly, for what it means for the river. A striking example of this was my conversation with Boban. During one of our interactions, in a short monologue, he conveyed to me the extensive range of reasons that have been responsible for the degradation of the Nila. Some of these include rapid and unscientific urbanisation, waste disposal into the river, both by industries and individuals, the lack of sanitation projects to cleanse waste, lack of studies about the nature of pollution and lack of surveys to measure and mark the banks of the river, in the light of rampant encroachment.

As this list of factors indicates, the task that faces us is an impossible one. It is made all the more so because the knowledge that we have is proving insufficient. Dr. Sajeew explained how conservation efforts, not only for the Bharathapuzha, but for all rivers around the world, are confounded by the ways in which the global climate condition is changing, or rather, has changed. The knowledge and wisdom that we have gathered over the years are failing us as the condition of the planet changes rapidly and drastically. For example, so far, it was established knowledge that there is only one major cycle on the planet at a given time. Or that a cyclone does not cross the subcontinent going from the Bay of Bengal to the Arabian sea. In the last year, both these rules of environmental knowledge have been broken.

In addition to this, failing of existing knowledge is the apathy towards gath-

ering knowledge that we need to support our efforts. Many of these participants pointed out that we can know, but do not. And much of this is the knowledge that we really require if we are to save the river. Boban points to the lack of studies carried out by government bodies on the condition of the river and the factors contributing to it. He told me that the last survey that was done of the Bharathapura river basin was during the colonial era. Their accusation against the government and state authorities is a nuanced one. It is not that they are not doing anything, but that they are doing without thinking, which is making the condition worse. Their response to the problems that people are facing because of the changing condition of the river and climate is to build more - reservoirs, hydroelectric projects, and check dams. And this indiscriminate building is further constricting the natural course of the river. As Dr. Sajeew said, the definition of a river is an endless, unbroken flow of water, from origin to mouth. That, in the case of Bharathapuzha, does not exist.

Though the picture that they see is a dismal one, they continue to work committedly and advocate that collective action as the bedrock of conservation. Dr. Sajeew recommends afforestation of the riverine ecology using native flora. Arumughan insists on the need for bringing together different kinds and forms of knowledge and skill to build a concerted effort towards conservation. He insists that a change in people's lifestyle is required to ensure that any conservation efforts are sustainable and viable. And this, he suggests, can happen if we as a society come together to recognise the material importance of the river and the role of our actions in its degradation or conservation.

Ch. 5 What I Learnt

Over the course of this project, both the fieldwork and the filmmaking, I learnt so much about the river, but all of it was tied to the lives of those who lived around it - those who worked towards its conservation, and those who seemed unconcerned or unable to do anything for it. Here, I would like to consolidate my learnings under some themes.

5.1 The River as a Physical, Social and Cultural Entity

The river is the source of water to the denizens of the basin and agricultural activities on the banks. The life and lore of the people living on the banks are intricately entwined with the river Bharathappuzha itself. So one must assume that the changes which occurred in the flow and course of the river will affect the life and culture of the people. The rapid decline of the river's health will adversely affect the folk communities and other settlers along the basin. There is a transformation even in the consciousness of various communities living there as a result of modernisation, commercialisation and urbanisation.

It became clear from these conversations and interactions that there were two very different imaginations of the river at play. The first of these was the Nila of legendary, mythological glory, the other was Nila, the physical, material entity, whose water, sand, clay, the grass was essential to the communities living along with it and whose floodplains had irrigated the lands around it. It is common for Malayali poets to write paeans to the mythical Nila, and in doing this, it is the conservation of this Nila that they advocate for. The material, physical Nila, is the river of today, whose beaches have been mined dry of sand, and whose banks run wild with weeds and trees.

So the river that is facing extinction, the river that is sung about in movies and the river that has set its roots in the Malayali mind, are three different entities. The river on the ground is one that faces extinction. It is wild, and people are scared of it. It is a haven for drunkards and others looking to hide their activities. This is the river today. The river in our heart, though it is one we have read in poems and seen in the movies. It is picturesque and romantic. Images of this river are tinted with the filters and gradients of nostalgia. This is the river of yesterday. The river that has its roots in our mind is the divine Nila with its temples, deities, and ritual practices. It binds us quietly to the beliefs, traditions, and ways of life handed over generations. This is the river of a bygone era.

Conservation efforts that overlook any of the three aspects are bound to fail. For example, the time when common men (both educated and oth-

erwise) sided against environmentalists when the latter group advocated a strict no-sand mining policy or the time when many kaavu (sacred dense groves in human-populated areas) were abandoned during the age when being modern was synonymous to stopping archaic practices and how the destruction of these pockets of dense forests has affected the ecology and health of the river.

The river is hailed as the bed of culture in Kerala. But there is an important and difficult issue that cannot be overlooked - that the culture is feudal and rife with caste-based segregation and oppression. The divide between these two imaginations of the river is also related to the caste and class structure of the society around it. The glorious, mythical Nila is a river of rituals and poetry, much of these, Brahminical. They relate to a past that was deeply oppressive for the majority of the population. The material river is the one on which communities were dependent for their survival and livelihood, and from which people still get their drinking water, irrigation for their farms, clay, and reed for their craft objects, and so on.

5.2 The Role of Caste and Class Divisions in the Life of the River

Building on the understanding provided to me by my participants pushed me to explore the connection between caste, class, and conservation of Bharathapuzha.

Even though Kerala is broadly caste conscious, discrimination is a very subtle affair. People meticulously avoid enquiring about the caste of the person they might be speaking to, yet are often curious. Though inter-caste marriages are on the rise, it is still not the norm. And even when these marriages occur, they are hardly ever between far removed castes in the hierarchy. Casteism exists in the spirit of the language (linguistics), and that sort of connection isn't easy to shake off. This comes across in everyday casteist usages. For example, the word Pandaram meaning deadweight is a reference to a lower caste.²¹

The conservation of the river should be looked at from this historical context of feudalism and casteist practices that are in play today. Over centuries the river has been a religious symbol for the upper castes. Their temples and adjoining river banks were beyond the lower caste man's reach. The flourishing culture and society that took roots by the river banks were built on the poor man's empty belly. So, now when people fondly remember the old

days of plenty and customs of yore, when people hope to regain the 'river of then,' it shouldn't be coming as a terrible surprise that not all communities are equally excited. According to Kavi Raman, glorifying the mythical river of old rituals does nothing to save the river as it is right now. It further distances us from the reality of the river.

The conservation of the river should have fewer overtones of a glorious river and culture and instead be focussed on the crisis we all face as a group. It should be about the calamities, including drinking water shortages we will face if enough attention is not paid to the river today. Mysticism, legends, and myths do not have to be forgotten or struck out, but it should give way to the need and spirit of the times. ... and how different castes and classes of people are affected differently by the environmental degradation of the river.

It is interesting to note from the stories of these ecologists and activists is that they come from diverse backgrounds socially and financially. I believe what makes a man interested in the river isn't really class or caste... but his own worldview. Those like Raviman, who have access to lands that adjoin the river, have some access to parts of the river that they are able to protect are markedly different from Ayyappan, who has fought all his battles in and for public spaces. Yet one can see how the actions of Ayyappan were less successful compared to that of Raviman's when both have worked hard and honestly. The markers of caste and class separate, though not very neatly, those who are concerned about the river and have attempted to make some small efforts towards its conservation, and others, who are concerned, profoundly and even materially affected, but are unable to intervene in any way.

On the flip side of conservation efforts are the actions that negatively impact the river. These, too, are marked by class and caste.

5.3 The Economic Development of Kerala and its Impact on Nila

As Dr. TV Sajeer pointed out, the backward castes lack social capital in today's social structure. They overcome this in relation to the fabric of society by displaying their financial capital wherever possible. The mansions built by the lower and middle classes of the community is a testament to the truth of his words. Many of these houses were built on the backdrop of the Gulf Boom.

During the last quarter of the century, there has been a radical change in the social fabric of the state. There has been a gradual disintegration of the joint family system and the emergence of the 'nuclear family.' The trend of nuclear families is consistent with the rapid urbanisation that was a common feature of the country then. Coupled with the 'Gulf Boom,' this trend changed the face of the state. Houses for individual families (consisting of a couple and their unmarried children) were on the rise. Modern amenities like plumbing and washrooms, coupled with the relatively sheltered lives of nuclear families, meant that the rivers and public spaces once frequented were forgotten.

The lack of material dependence on the river meant that the centuries-long connection with the river was ripped apart in a few years. The traditional housing complexes were being discarded as an outdated mode of living as the people of Kerala, affluent and the poor alike, ran helter-skelter, finding new land and resources to build houses. Paddy fields have been levelled out to build more houses and buildings, tarred or cemented areas along the river bank has seen the astronomical rise, and most houses today have their lawns tiled with interlocks or courtyards cemented. Is it then surprising that the monsoon precipitation does not get soaked by the land and instead finds its way to the river by any means necessary? Why should we be then surprised at the rise in calamities and floods?

Many of the factors contributing to the recent floods of Kerala can be traced right back to the construction practices. The indiscriminate destruction of the hills and forest in the catchment areas of the river means the trees in those areas are depleted. These trees acted as a barricade to the surface runoff, thereby enabling water absorption by the soil, which in turn, which would be released during the dry during summer months. Instead, that water now gushes down to meet the villages below in the form of landslides. The sand mining has resulted in the river and its basin losing its ability to retain the rainwater. The sand that acted as a sponge was a natural reservoir for underground water, which would shield from the sun. In olden times the sand bed could be dug up for drinking water even in scorching summers. The sand also acted as a regulator reducing the rate of flow of water, ensuring that the river water flowed slowly into the sea. Ironically we now have concrete structures (check dams and regulators) to do this job with the sand taken from these river beds.

5.4 Disconnect between the River and its People

Today the lives of the people of the river are not as connected as it once was. Their lives began with a bath in the river and ended with another visit to the river. They took care of the river because it was a place of constant interaction. Today the river is another entity like a hill in the distance. People ignore, neglect, and avoid the river in their daily lives, and this leads to further deterioration of its condition.

The disconnect is leading to the destruction of the river. It is not only 'not caring,' but by living in ways in which we 'don't care,' we contribute to the destruction. The last few decades are marked by the construction boom and consumption boom. These have both contributed to the deterioration of nature. By mindlessly mining the sand and quarrying the hill ranges, the construction industry has put to risk the ecosystem surrounding the river basin. Similarly, mindless consumption of off the rack varieties of clothing, food, electronics, and such other consumables has heavily resulted in garbage piling up in the river basin area.

Modern farming practices with its constant use of fertilisers and pesticides have led to the eutrophication of the river in places and loss of biodiversity in others. Going back to organic farming practices, sustainable in the light of the health of the river is to be done as soon as possible. While our current education system stresses the importance of water conservation, practical steps to introduce students to the water bodies are missing in our syllabi. This sort of experiential learning needs to be our agenda for education if we want to save the river for the kids now in school and generations after that. When I say that the practices we have been following are detrimental to the river and that we need to overturn it, I am not speaking against modernism. In all this, I am asking to take a less "for-profit" approach. I hope for a system that doesn't just look at exchanges in society by its monetary value. When we are in a frenzy to build river view houses, flats and villas by the riverside, we forget to notice that the filth from those apartments percolate into the river water and make it inhospitable for human consumption and life in general.

The rate of growth we call "progress" is based on multiplying the consumption of fast-depleting natural resources. This perpetual growth has already put us on a collision course with the natural order. This is an unsustainable model, a linear model of - extraction, production, distribution, consumption, and disposal whose lasting effect is a lopsided economy and large-

scale pollution. We who were nurtured and nourished by the river now has to take care of it. We must do that for ourselves if not for the river because our continued existence in the river basin is at peril without the river. We need to not just the systems in practice around the river, but individual habits as well.

5.5 The Angry River

Indiscriminate exploitation of nature has resulted in an unpredictable and unforgiving river. 2018 saw the highest rainfall and worst flood in nearly a century in Kerala. The floods the state in 2018 caused the death of 470 people and properties damage worth 40000 crores while in 2019, the death toll was 121, and the property loss is yet to be estimated.²²

The vast number of deaths in the floods could be linked to the rampant destruction of the Western Ghats. Madhav Gadgil, head of the Western Ghats Ecology Expert Panel (WGEEP) that submitted its report to the government in 2011, identified excessive mining and quarrying, use of land for non-forest purposes and construction of high rises in the catchment areas of rivers and river-beds as the reasons for such disasters. Wherever landslides happened, there were granite quarries on the other side of the hill, according to government data on damages and a recent mapping of Kerala's granite quarries by Dr. T.V. Sajeev. In Kavalappara, by the banks of the river, saw the most significant losses in the rains as a landslide smashed down a hill submerging hundreds of houses in the valley.²⁴

Wetlands and lakes that acted as natural safeguards against floods have disappeared because of rampant urbanisation and the construction of infrastructure. Gadgil blamed Kerala floods partially on man-made factors, but climate change and unpredictability of climate too has a role to play in it. Dr. TV Sajeev has an excellent analogy to illustrate this. Think of a kettle of water put for boiling. Until it reaches its boiling point, the pattern of all water molecules in its liquid state can be accurately predicted. But once that critical temperature, it is chaos. According to some scientists, this warming up is at the rate of 0.069 C/decade, and a decrease of 15 mm/year is noted in the case of average annual rainfall during this period.²⁴ This is the present condition of climate forecasting. Global warming has tipped us beyond the point of accurately predicting the climatic conditions.

In a recent report by the World Bank Group, average temperatures throughout Southeast Asia were seen rising, and rainfall growing more erratic, par-

ticularly in India. The report predicts that these weather changes will continue to shadow us over the coming decades.²⁵

5.6 The Challenges Facing Conservation Efforts

As climate change makes extreme rainfall events more frequent in the river basin, there is an urgent need to plan and manage our life around the river. While the river is faced with conflicts arising from issues. These problems are further aggravated by continual human interference in the river basins.

Outdated surveys and poor policies set in place plagues the conservation efforts. Scientific studies are not conducted inquiring into the nature of pollution and environmental degradation. A lack of studies manifests as a lack of direction for local governing bodies and district-level administrators. The public, too, is gravely in the dark about the necessary steps to be taken to reclaim the health of the river and the ecosystem.

One thing all stakeholders can agree upon is the need to afforest the river banks. But it is essential to assess the current plantation effort and their roles in enriching water resources. The government unwisely and unscientifically spends public money in beautifying the face of the river by planting foreign species and planning development projects. What needs to be done, though, is to stimulate spread the local riparian fauna like screw-pine and various kinds of bamboo need to be planted along the riverbanks to prevent erosion and to reduce the increasing water temperature. Fish and other life forms along the river use these safe spaces for reproduction. The tree line is also crucial for predators who come to hunt the fish. They need immediate roosting places as flying in from far away to snatch the fish off of water is impossible. While it is crucial to plant trees, it is more important to protect natural forests and water resources. The new generation should be encouraged to develop their interest in the conservation of forests, rivers, and related ecosystems and taught multiple functions and values of ecologically suitable local species.

Rivers, an integral part of the ecology, cannot exist without healthy forests in its origin, which, in turn, cannot exist without local indigenous communities. Indigenous communities along the river have proven that they are the best protectors of natural forests, rivers, rivulets, and streams. With recent policies taken by the judiciary and legislative supporting their eviction of Adivasis from the land where they have been staying for generations,

neither the forests nor river is going to be healthy.

Encroachment along the river bank for farming practices and construction needs to be put to a stop as soon as possible. While the laws are in place to prevent such indiscriminate construction, the builders, mafia, and the general public make light of these rules, and the officials are mere bystanders. Large-scale development projects like dams, check dams, and regulators affect the river health adversely over long terms.

The impact on the river health, human health, and environment have led to the immediate need to work on river conservation and restoration. The protection of the river is not a simple activity. It requires an integrated approach that brings all the stakeholders—rural communities, youth, academics, experts, and civil societies together. What is needed is to induce more than the minor cosmetic changes we as a society are used to doing now. It requires a careful examination of our goals and morals as individuals and as a society too.

Ch. 6 Conclusion

This project has three protagonists: the river Nila, its people- those who live along it, and are consciously or otherwise, affect the river and are affected by it, and the filmmaker- who is an outsider to the river, its geography, its community, and who is attempting to understand the river through its people.

The awareness is increasing in the light of recurring natural disasters – though it cant seem to catch up with the rate of population growth and ever-accelerating urbanisation. The fact that there are no clear targets and goals set out by the people working in the realm of conservation is also scary. It is still about putting a stop to malpractices as much as it is about adopting more eco-friendly and sustainable ways of life.

While time spent by the river was one of intense personal growth, it formulated in me with distinct ideas about the condition of the river.

- Bharathapuzha, the river, is in poor condition. Special protection needs to be attributed based on the condition of the river, putting a halt to further exploitations. The industrial belt of Kanjikode currently pollutes the water of the river with deadly chemicals including heavy metals . The are a few beverage plants that tap into the groundwater of the already depleted Palakkad gap.
- The construction business and riverfront housing projects in Kerala faced a slowdown after the floods. Now, however, they are due to emerge again. This is a cause for concern. Laws that mandate a minimum distance from the waterfront, garbage disposal guidelines, etc. are transgressed at every stage of the project. These violations need to be met with a strict and swift hand of justice.
- Scientific surveys to measure and mark the structure and flow of the river need to be conducted in the light that some of the maps used for reference to the geography of the river are from the time of the British Raj. These studies are of paramount importance in the light of illegal land acquisitions, encroachments, etc. and recurring natural calamities.
- 4 Scientific studies about the nature and causes of pollution and its solutions like waste disposal treatment plants, including options for recycling and energy generation, need to be conducted and applied at district and local self-government levels.
- Infrastructure projects being constructed indiscriminately along the river basin and high ranges are most likely an outcome of India's vote bank politics. Appeasing local voters with considerable projects in the constituency is, in the end, going to hurt the people and the ecosystem alike. Infrastructure projects are essential for the economic growth, but the indiscriminate nature in which it sprouts along the riverside is to be protested against. For example, check dams are good in the sense to slow down the flow of the river, thereby recharging the groundwater and increasing the water table, but one must question the need to have check-dams every few kilometres.
- Though sand mining is the most obvious cause of the condition of the river, a total sand mining ban is impractical. Mining activities currently allowed at the harbour regions may be increased. Fishermen already complain of the rising level of the sandbeds at the river mouth.
- Quarrying threatens to harm the river at its point of origin. Surprisingly, while government records say that only 730 quarries are functioning with the requisite permission, there are around 5100 quarries that are active. They have completely altered the geography of the Sahyadri range, destroying the ecosystems and rendering the region prone to landslides.²⁶
- Afforestation is the need of the hour. Riverine treeline will ensure the balance of the ecosystem as well as prevent soil erosion. Planting of trees like banyan, jackfruit, teak, mango, which can enhance water table and water quality is suggested²⁷. Perhaps plants native to the riverine system like bamboos, mangroves, and screw pines will yield faster results.
- Even though changes in climate may be now unpredictable, we must take all measures to ensure that when calamities occur, the damage to the riverine ecology and people is minimal. Activities like the discussion called by the District Disaster Management Authority that I attended in Palakkad District collector's office gives me hope. Still, the distance between officials discussing in meetings, and implementing policies at the ground level is often more than what it seems.
- Casteism continues to be present in the social fabric ever so often in hushed tones. The conservation of the river is inextricably linked to the rifts created among men by the bygone feudal era. We must reassess what the river means to different communities and formulate plans

that appeal to the entirety of the river's denizens if we are to see a mass movement rallying behind the conservation efforts.

- I have come across in my trip people who fearlessly stand up to and people who are afraid to speak up against the violations they see against the river. We need to inculcate in our citizens and especially the youth a culture of healthy opposition. Our democratic process is only ensured by the voice of all.
- The youth needs to be informed and taught about the importance of living symbiotically with nature. It is only by inculcating values of social responsibility in individual actions and creating awareness about that we can hope to see a real change in the time to come.

While all of these are important for the river, a master plan combining all the above is our only hope to regain the flow and structure of the river. Even as I write this, while a section of society is trying to preserve what is left of the river and avoid further catastrophes, sand that has been deposited by the two consecutive floods is being mined illegally. Our history has taught us to think about the benefit of others around us, for the sake of our own survival.

Anything if the journey has taught me, is that the land and people of Bharathapuzha do not lack the ability to invite new cultures and adapt and assimilate.

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Gallery



Panthakaali , a ritual form of worship in progress performed by Vayali folklore group, Arangottukara. It is possible that these form of folk expressions are extremely ancient, perhaps even neolithic.



My father in the river a few days before his marriage,1987. My father was born in Malappuram district, not very far from the river.



The river is taken for granted. Domestic waste as well as run off from agricultural pursuits filled with chemicals are let into the river without any sort of monitoring.



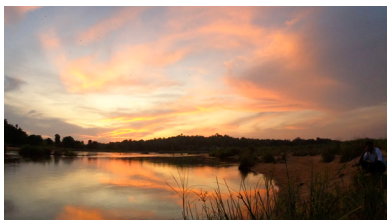
Kannanur Bhagawati Temple, Pattambi. The banks of the river are dotted with serene and mystical temples, some of whose history goes back a few centuries.



Among the adventures I encountered in this two and a half month trip, speaking onstage at the Friends of Bharathapuzha meeting was the most nerve wrecking.



Football has always been the greatest passion of Malappuram. A variation of the game with seven people (called sevens) is in progress in the dry river bed. The life of the people by the river banks was a point of interest to me.



"Rather than great seas that holds unknown wonders in their wombs, I like my familiar Nila"

- MT Vasudevan Nair



With my father's older sister who I visited during my fieldwork. We are by the river, near her house in Tavanur village.



Vinod Nambiar, the director of Vayali is a software engineer based in Kochi. He and nine of his childhood friends started the group back in 2004.



Sharath KR, Dr. Rajan Chungath and my father KP Vijayagopalan.



In many places the river is akin to a drain, choked with garbage from the town.



I noticed in my travels the loss of forest cover and canopies has resulted in a sort of homelessness for the birds of the region.



Sundaran the bard, painted for us a powerful and haunting description of feudalism and casteism he experienced in his childhood



The initial recce team with Abdurrehman Master of Ponnani. Abdurrehman Master is a historian who has done an in-depth study on the lower basin area.



A long exposure photograph of the river shot in Pattambi.



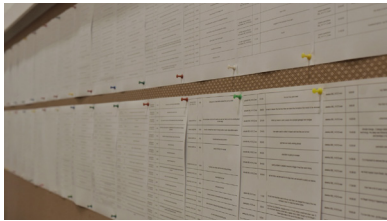
Spending time with the people and learning about their connection with the river.



Metroman E Sreedharan and Member of Parliament VK Sreekandan.



I was pleasantly surprised at how several people responded with curiosity and interest at the prospect of being filmed.



The topics and anecdotes that each person spoke of were printed and pinned up. This helped me identify patterns and analyse my material.



The river is reed riddled and wild, and people are scared of it. It is a haven for drunkards and others looking to hide their activities. There are broken alcohol bottles strewn in the sand of the riverbed.



Raviman (Ravindranath Anayath) was able to drive sand miners off his neighbourhood after prolonged legal battles.



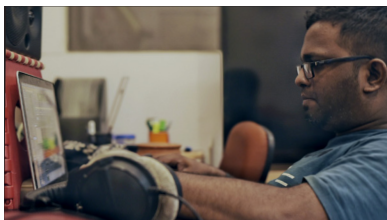
Through multiple rounds of editing the film, I have struggled with making it concise.



The Bharathapuzha railway station seems to have borrowed more than just the river's name. Once a functional station named to symbolise people's respect and love for the river, it is now an abandoned place to be avoided.



A meeting for District Disaster Management Plan Revision took place at the Collectors Office, Palakkad.



Sam Santosh helped me with the finer aspects of sound design.



In Eravathody the last of a long line of handloom weavers are struggling with changing material conditions.



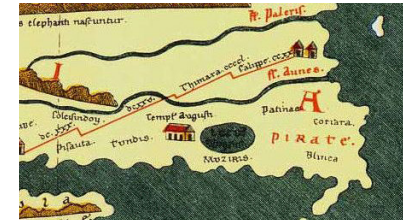
Sand mining has resulted in the river and its basin losing its ability to retain water.



A hydroelectric project proposed in Pathrakkadavu in the Silent Valley National Park was cancelled after agitations by environmentalists.



The river holds a sacred place for people of different faiths and communities. Here, some prayer beads hung on a branch by the river.



An old Greek map shows the ports of Tyndis and Muziris. The seaport of Tyndis at Ponnani, which is the mouth of the river Nila. (credit source)



Paddy cultivation in Kerala has steadily shrunk due to many factors, including the growth of cash crops. This affects people directly since rice is staple food for most.



Many of the communities who live by the river have their own gods who do not find a place in the Hindu pantheon.



The port of Tyndis is now the Ponnani harbour. No longer a trade port, it is reduced to the status of a major fishing centre.



Rambabu is a migrant worker, who has worked on a series of checkdams along the river.



Many of these gods are in the form of river animals.



Ponnani mosque built in 1518 AD by Shaikh Zainudin Makhdam.



Kerala Kalamandalam, is a major center for learning Indian performing arts, especially those that developed in the Southern states of India. (pc. Jishnu Krishnan)



An old man at the Shoranur bus station, one of my silent participants.



These men in Kanjikode didn't want to speak on camera about the river. Much of the waste from the town's factories goes into the river.



Ramachandra Pulavar and Rajeev Pulavar performing Kamba Ramayanam using Tholpavakoothu. This artform is believed to be brought to the banks of Nila by tamil traders. (pc. Jishnu Krishnan)



An old man who was under the impression that I would be able to share a hard-copy of the image that I captured, Shoranur bus station.



Children swimming in the checkdam near Cheruturuthi, Shoranur. Checkdams ensure a steady pool of water.



The extreme sand mining in the last 30 years has depleted the thick sand bed.



Francis, who sells lottery tickets at the Shoranur bus station, performs a jig for the camera.



Kids dance for the camera by the Velli-ankallu bridge and regulator.



An uncle of Sundaran the bard sits by his house in Pananthara near Chinakkathoor Bhagavathy Temple at Palappuram.



The living conditions of the weavers in Eravathody are worsening by the year due to the increased production of mill made cloth and penchant for fast fashion.



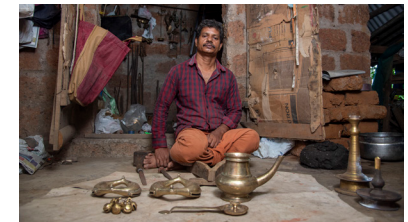
Among the many craft communities that live by the river banks, are the the potters or Kumbharans. This image was taken during my interaction with Kumbharan Gopalan.



An agricultural labourer who works at a coconut plantation in Nambaram, Shoranur. Parts of the riverine ecology have been replaced by cash crop plantations.



Warping is the process which converts the hank yarn into a linear form. The task requires many hands and each weaver is helped by his neighbours.



Shivaraman is a metal worker. Here, he displays his wares for the camera.



Prabhavathi is a mat weaver. She contributions were instrumental in the craft being recognised by UNESCO.



A member of the weaving community carries back the warped yarn. He will then weave this yarn.



Mustafa is one among the nine fishermen of Kudallur village.



Mantrikumar is a weaver whose ancestors settled on the banks of Nila seven generations ago. He is the vice-president of the Eravathody handloom weavers society.



Wells were constructed in the 1980s as part of drinking water projects. The wells jut out above the depleted water line.



Raman's son took me to an empty Naalukettu or courtyard house. Houses like these were probably abandoned as families moved towards nuclearisation.



Kavi Raman is a prominent and popular poet in Malayalam. Raman feels uncomfortable with a penchant among Malayali writers to sing paeans to the glory of the river.



Chemicals used in the farming of paddy percolate into the river water. This has caused issues like eutrophication.



Old buildings and paddy farms are razed down to make space for new apartment buildings.



Dr. Rajan Chungat has written many accounts of folklore and myths surrounding the river.



Krishnadas performs his daily baths in a pond, believing in the holiness of water bodies.



New villas and flat complexes have come up across cities.



The District Disaster Management Plan Revision Meeting was attended by acitvists, environmental and social scientists, nature conservation societies, quick response teams, disaster management experts and the media.



Grasses and bushes, like this palm tree, grow where the sand is gone, leading to an environmental catastrophe.



A hydroelectric project proposed in Pathrakkadavu in the Silent Valley National Park was cancelled after agitations by environmentalists including officers from the Forest Department.



Guruvaayoorappan and his children walk through the screw pine forest that he had cultivated.



Kanjikode, is an industrial town by the river which contibutes to maximum effluents to the river and emissions in the air.



Deforestation have severely degraded the condition of the river and are accelerating its death.



Tree cover by the riverside is important for the reproduction of riverine fauna such as these butterflies.



Advertisement for Riverfront housing are ubiquitous in newspapers and magazines.



Even now, sand that was deposited by the two consecutive floods is being mined illegally.

