



Ways of Knowing

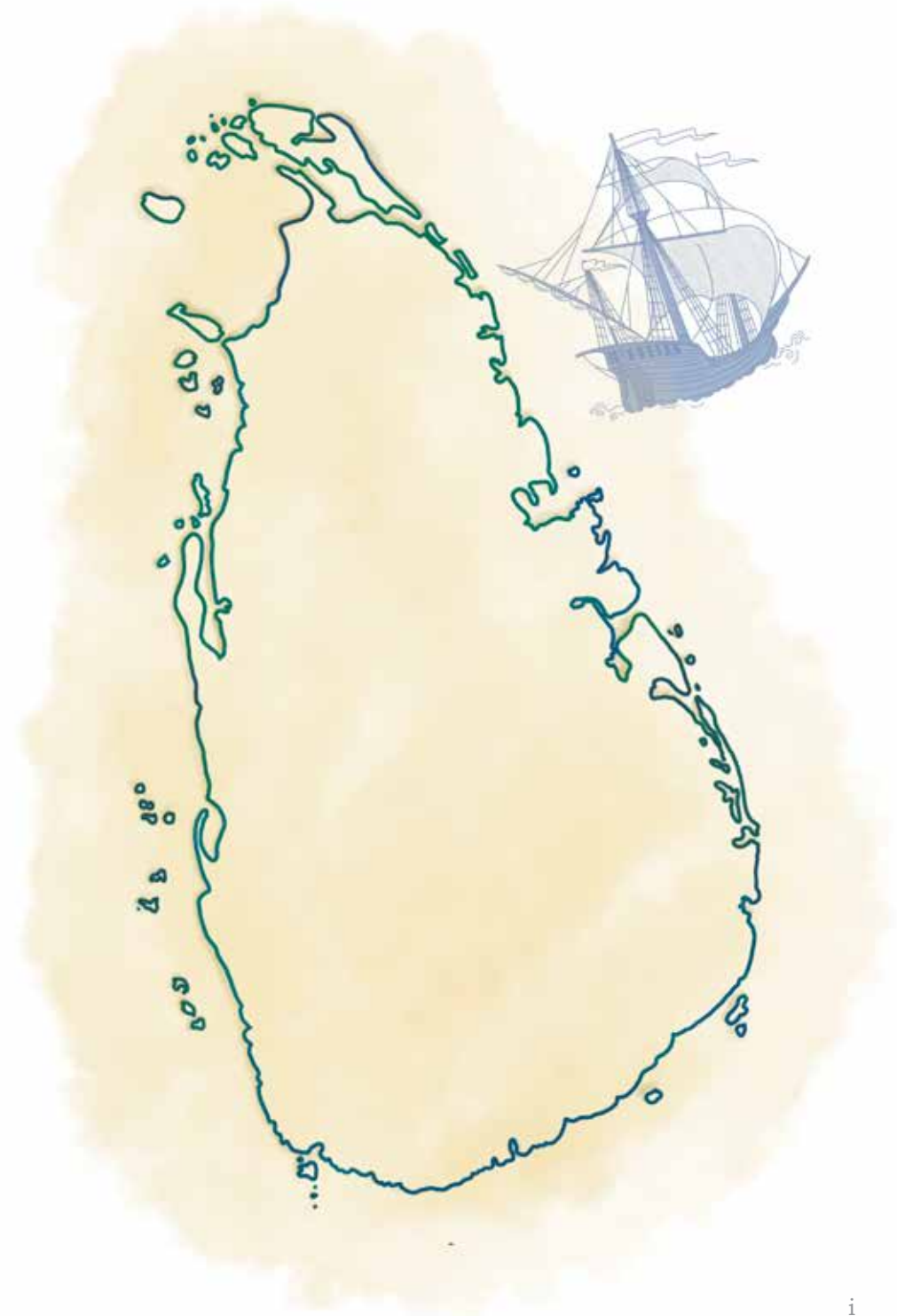


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Introduction

People construct cities and our understanding of them changes the way we build, operate, and live in/with them. Kirulapana Canal, the central subject of this book presents these changes very well. Early records show that the Dutch colonizers saw the canal as a transport means. Probably due to the presence of a lot of transport canals in and around the Netherlands, the colonizers were conditioned to understand canals as transport routes. They built bunds and other infrastructure to be able to use it as a transport canal.

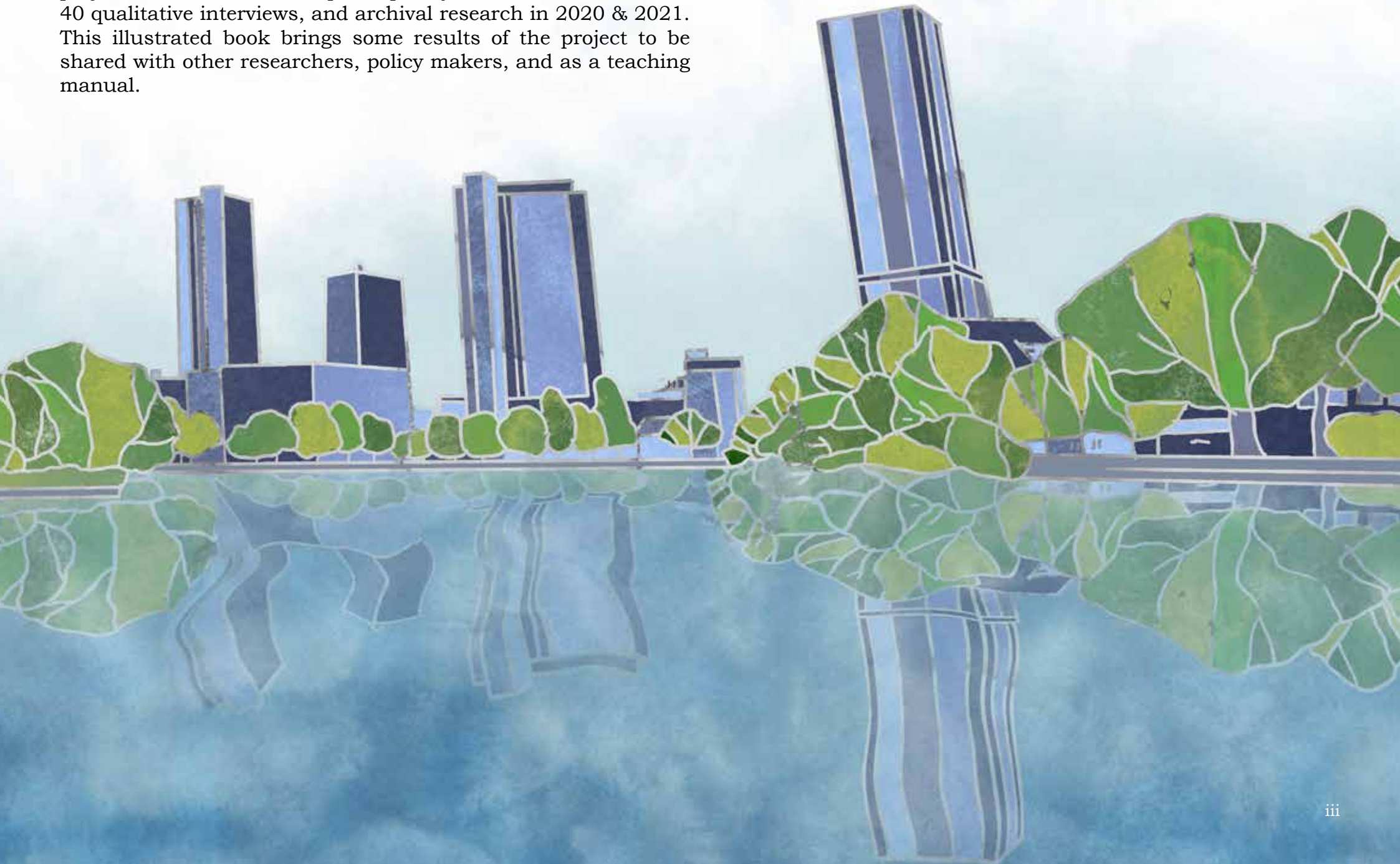
The British took over from the Dutch and colonized Sri Lanka. The British colonial understanding of Kirulapana Canal was as a drainage system. They altered the landscape to be able to drain the marshy lands of the then Colombo. After Sri Lanka's independence, Kirulapana Canal remained a drainage system and now the government intends to develop an inland water transport system on it.



To understand how our urban world is changing, we need to investigate how seemingly technical or natural objects are embedded in our understanding, or in brief, to acknowledge that knowledges (in plural) are political. There are multiple ways of knowing our environment and these multiple ways matter in how we engage with it, e.g., from Kirulapana Canal being a transport route to it being a drainage system. Understanding of some influential groups take precedence over other understanding, which we call knowledge hegemony. Therefore, it is important to understand plural knowledges, who produces them, and how some of them become hegemonic. We, the authors of this book, embarked on an investigation to uncover these different lenses and how they affect the way we live in our cities.



The project was to learn from Kirulapana Canal, from a health and knowledge (what we call hydrorationality) perspective. The project team members did participatory observation, more than 40 qualitative interviews, and archival research in 2020 & 2021. This illustrated book brings some results of the project to be shared with other researchers, policy makers, and as a teaching manual.

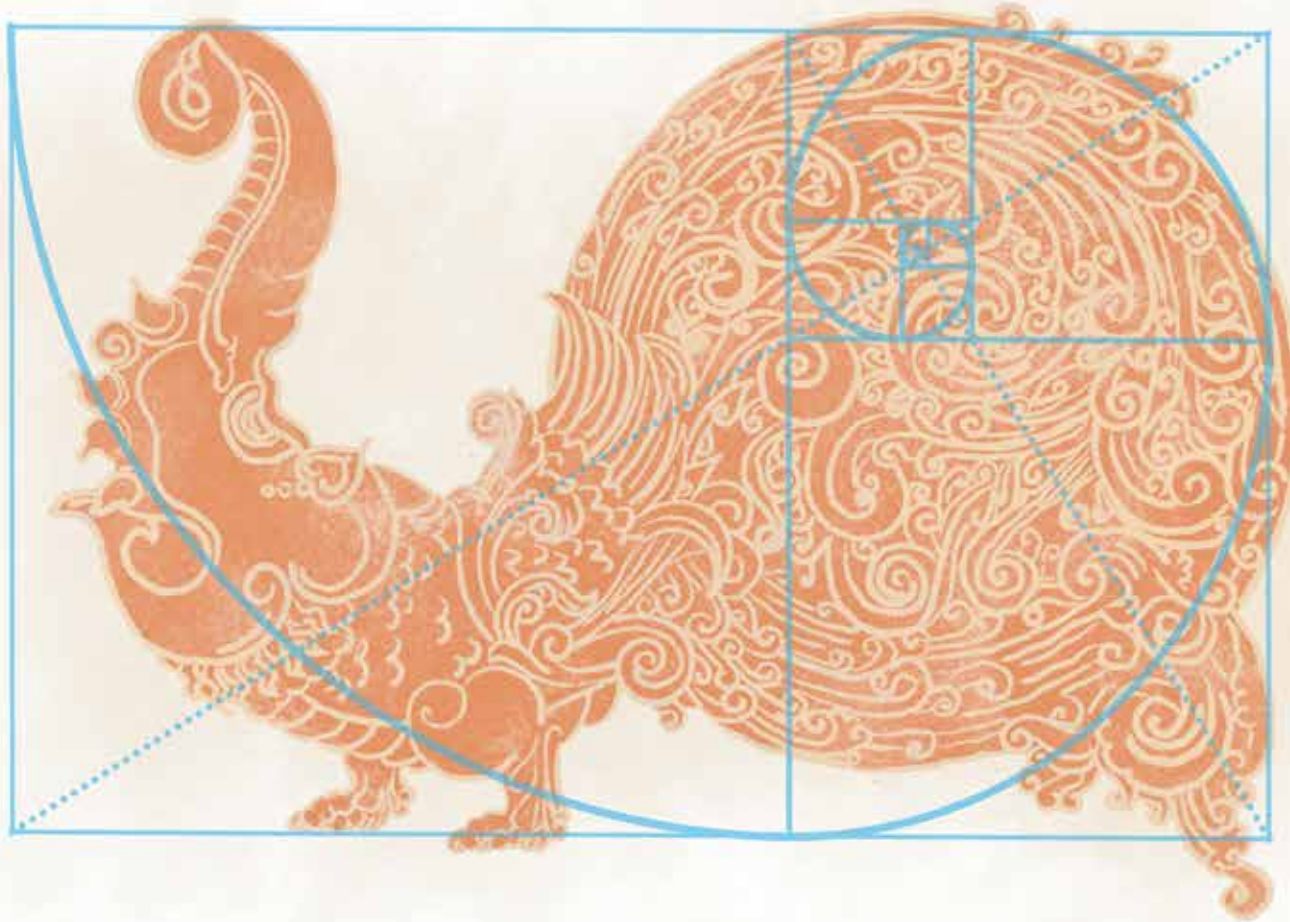


An aerial, stylized illustration of a city. A prominent canal flows from the top left towards the bottom center. To the right of the canal, there is a large green area containing a red tennis court. Further to the right, there are several blue, curved shapes representing water bodies or canals. The city buildings are depicted in various colors like orange, grey, and white. A dark blue banner is overlaid on the right side of the image.

*How many Kirulapana
Canals are there in Colombo?*

Dialogue 1:

Why do we find something beautiful?



Philosophers in ancient Greece to mathematicians in ancient India, have dwelled into the question of beauty, to articulate a rational mathematical model. They came up with something, which is now called the golden ratio. A perfect proportion, a number series, which is considered divine and can be seen in nature. Ancient Greek architecture to modern architects has designed their buildings in accordance with the golden ratio. The way they understood nature reflected in the way they changed it.



However, can we define beauty so objectively, with a formula? Let us look at this pen. How will you judge this pen? Maybe on its ability to write, its weight, or maybe its design? What if you were told that the pen was used to sign the constitution of Sri Lanka into effect? Will you then judge the pen for its design or for its historic value? The moment the pen's history is revealed, its usefulness as a writing tool diminishes. The way we understand the pen, leads to the way we treat it, e.g., maybe rather than writing we will preserve it in a museum.

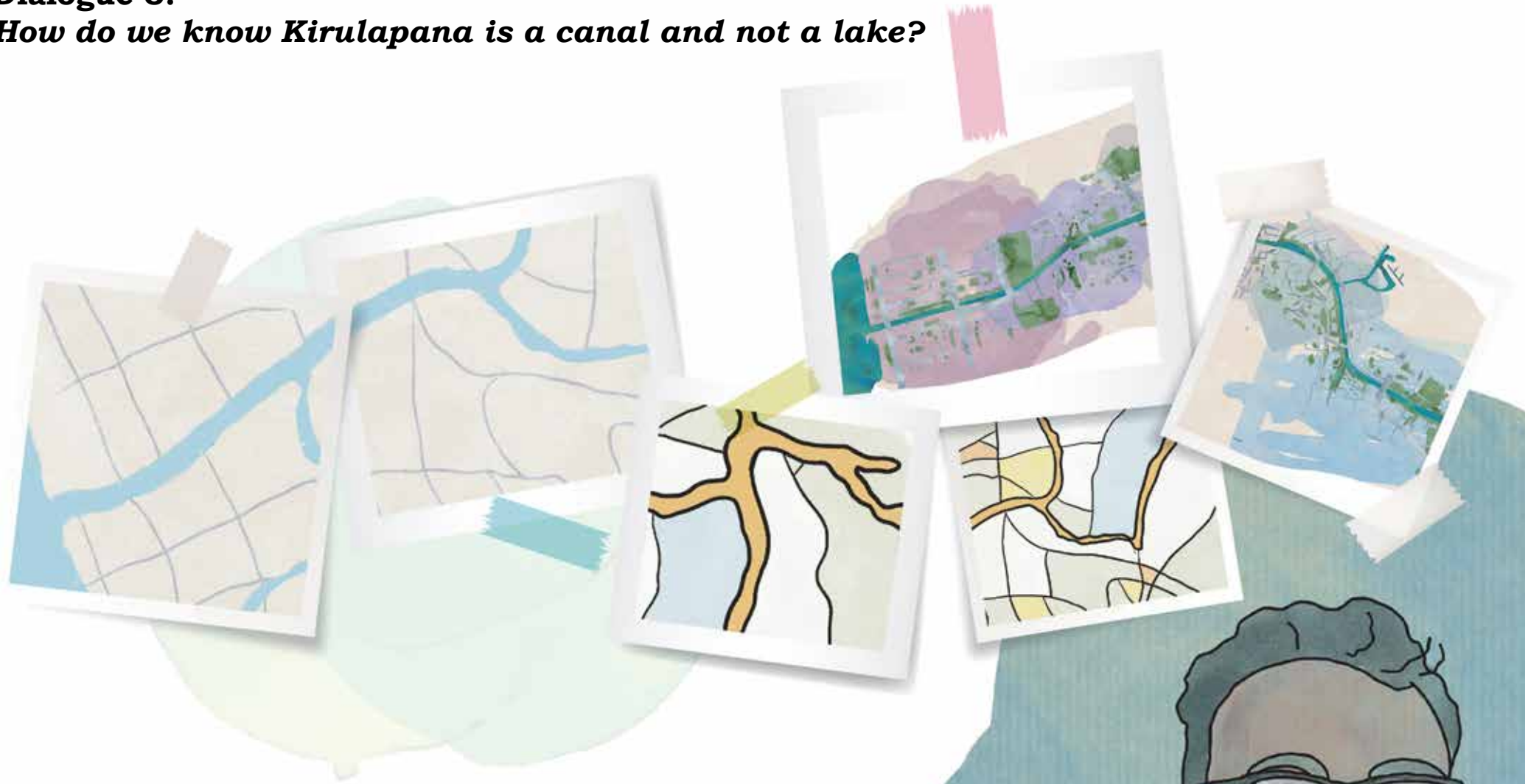
Dialogue 2: *Who construct the stories?*

So stories behind objects matter on how we see and interact with it. Who construct these stories? The pen used for signing Sri Lankan constitution into effect is collective history. However, your grandmother's pen is uniquely significant to you. Stories are always associated with people, constructed by people, and has different importance. In a similar way, we identify with cities and objects therein. Let us explore how we construct stories about the objects in the city and how those stories determine how we interact with them.



Dialogue 3:

How do we know Kirulapana is a canal and not a lake?



Let us look at Kirulapana Canal. We feel it is a canal because we see it in this way. However, can it be a long lake?. Whether an elongated lake or a canal, how do we understand the canal? Let us look at three examples below. Here, six different people engage in a dialogue about the Kirulapana Canal (let us call it a canal, because most people call it that way!)

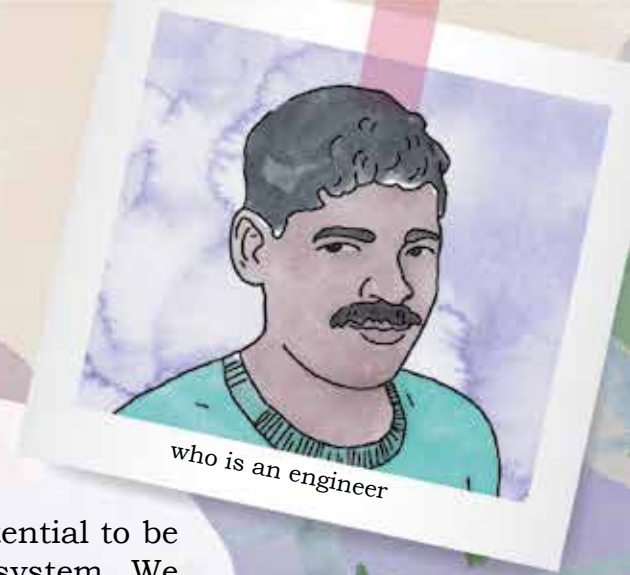


Dialogue 4:

Can Kirulapana Canal be used for transportation?



There is a lingering smell which comes from the canal. How can we use it for transport, when we will be smelling this all the time when on a boat. It is not feasible.



This canal has the potential to be used as a transport system. We need to have a water management system, which will account for water fluctuations due to rain and regular dredging

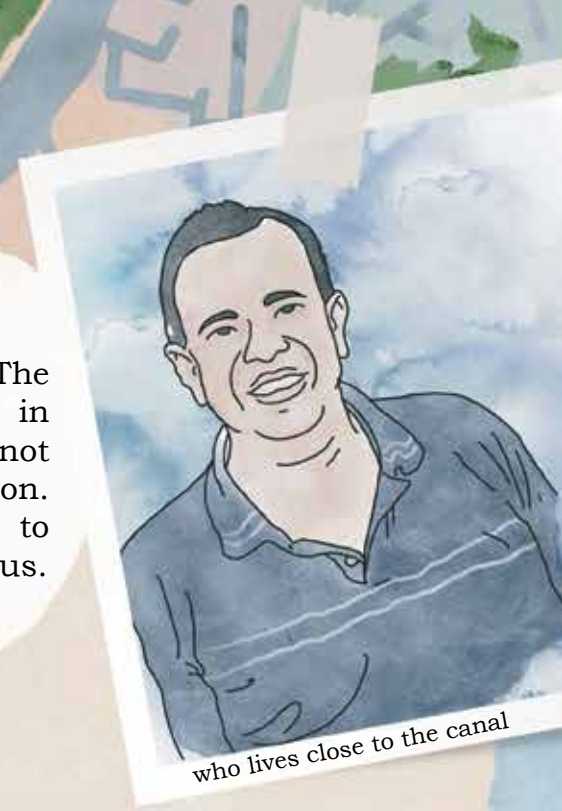
Dialogue 5: *Can Kirulapana Canal be used for fishing?*

It is nice to fish in the canal. I get some fish, which comes from the sea. However, it is a hobby. I enjoy fishing and it is very meditative. Even when I do not catch any fish, I feel good about fishing.

Look at the canal, it is dirty. The water is not clean. The fish in it eat this pollution and are not good for human consumption. We should not allow people to fish in the canal, it is dangerous.



who fish on the canal during weekends



who lives close to the canal

NOTE: See how for one person, the canal offers an activity which is meditative. However, in contrast, the same activity is laden with health concerns. Benefits to mental health vs physical effects of eating fish! (again two different canals)

Dialogue 6:

What aesthetic qualities does Kirulapana canal bring?

It is nice to have the canal here. I know it is polluted, but we live on 8th floor and it does not smell. However, the view is incredible. The colour of the water is different based on the sun. I love sitting on my balcony and viewing the canal.



who lives in a rich condominium

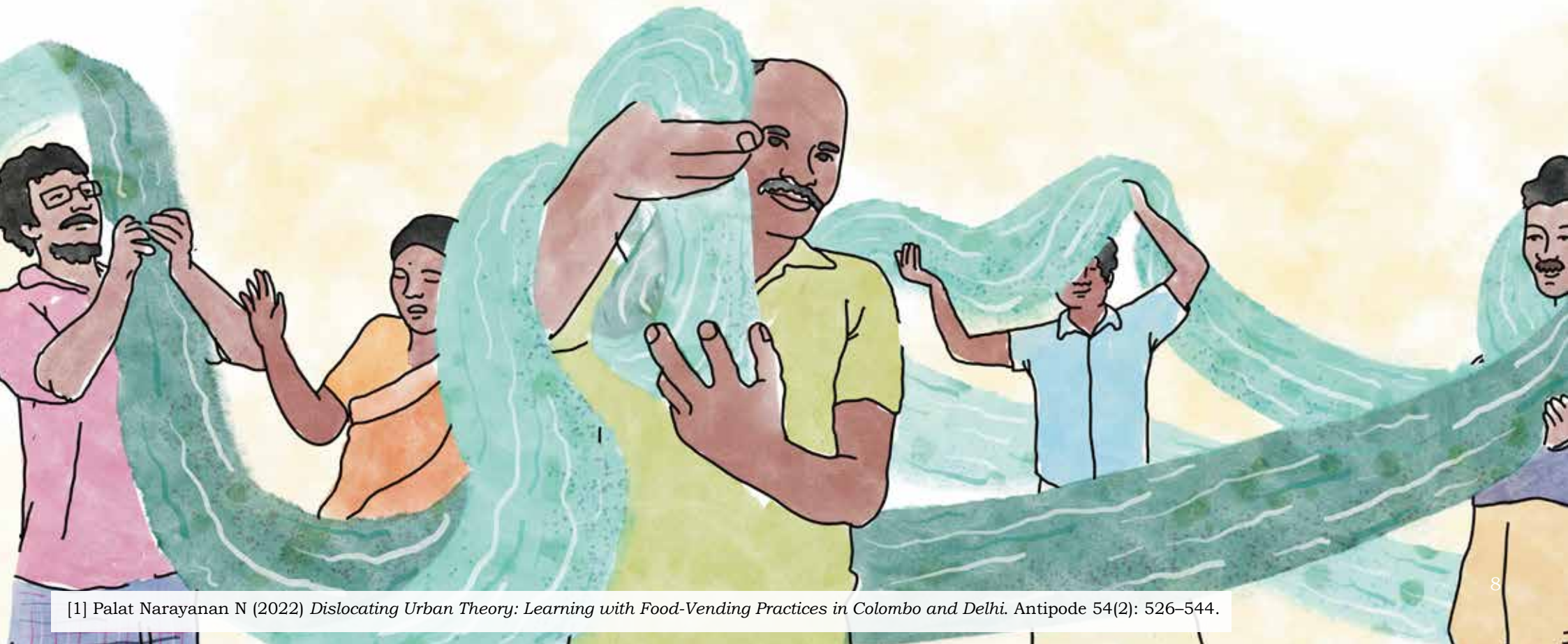


who lives right next to the canal

The canal used to be very different when we moved to Colombo. There was no embankment, the water used to be clean. We used to often bath in the canal, there were also people who used to wash their clothes. That time, the canal was a very active public space.

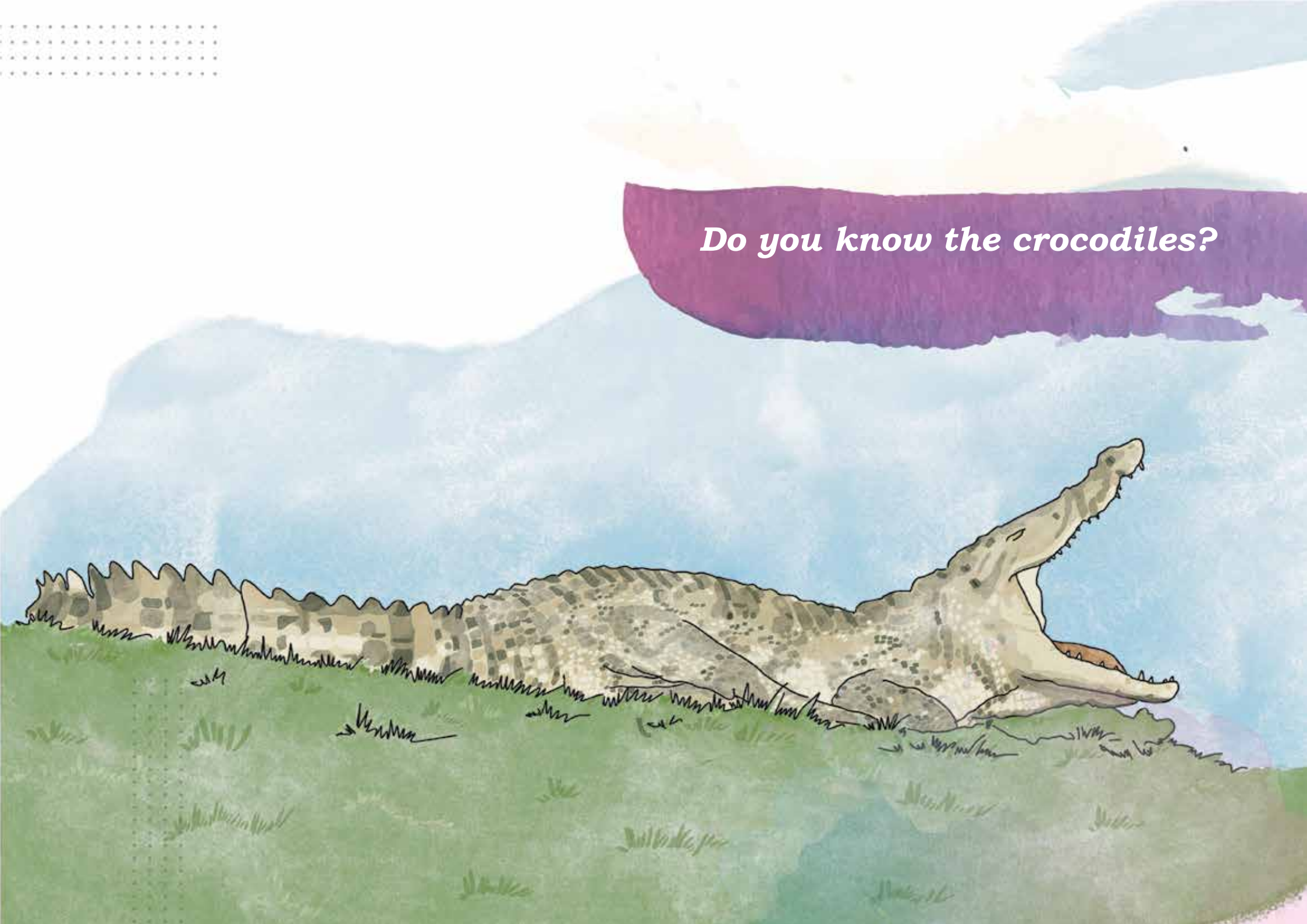
Dialogue 7: *Knowledges are political*

How we know the canal depends on who we are. Each of the six people above have their own Kirulapana Canal. Knowledges are subjective (depending on the person) and in that way inherently political ^[1]. Based on the dialogues above, there are multiple canals. The physical canal is the same, but is understood differently by different people and this matters on how they treat and understand the canal.

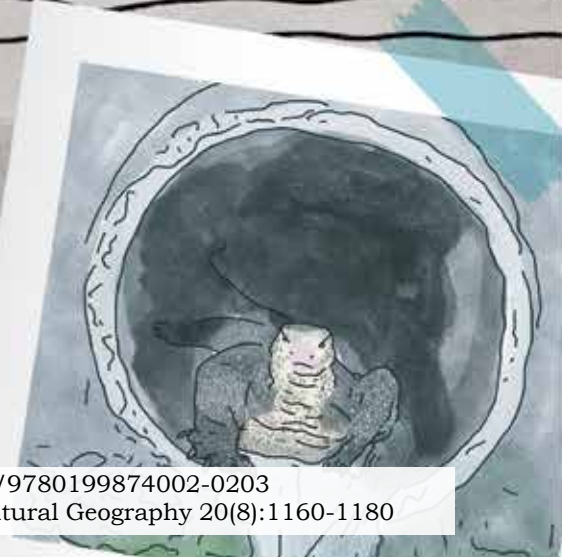


[1] Palat Narayanan N (2022) *Dislocating Urban Theory: Learning with Food-Vending Practices in Colombo and Delhi*. *Antipode* 54(2): 526–544.

Do you know the crocodiles?

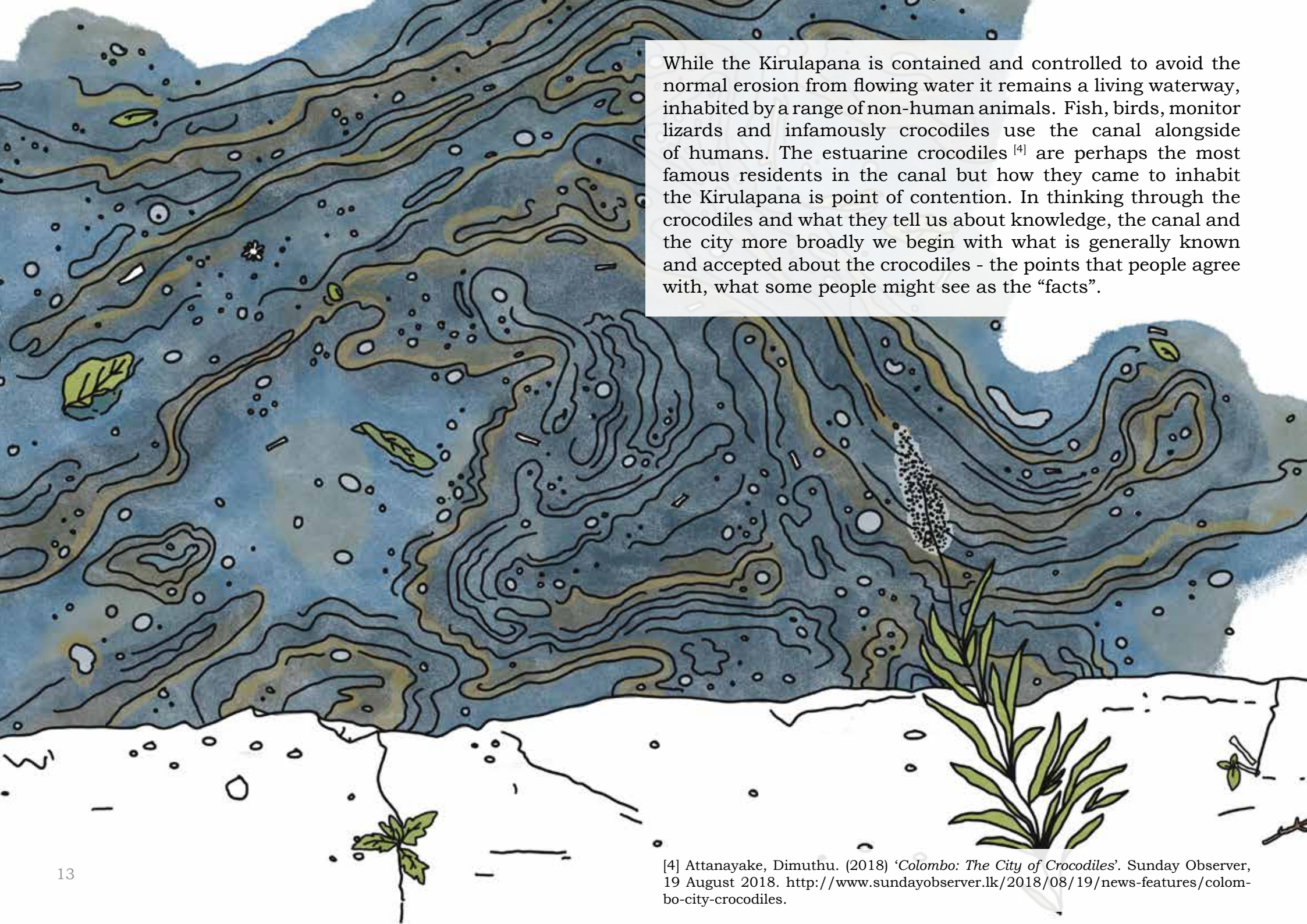


When people talk about the urban environment they mean things both thought of as “natural” or quasi-natural such as plants and non-human animals or even the air, and those often seen as “unnatural”, for example water pipes, rubbish and air pollution. Many social scientists argue that no part of the environment is inherently “natural” or “unnatural”, nor is it neutral. The city itself is the result of what we term socio-ecological transformation - that is the circulation and reworking of the environment and social systems to produce the city.^[2] Thus for social scientists the urban environments are inherently political, but it is also affective and symbolic. Natural scientists on the other hand focus much more on what is measurable and observable in the environment. Ethologists working on urban animal life for example may focus more on how life in the city shapes animal behavior and how this may differ from life in the “wild”. These two understandings (social and natural science) don’t negate each other but instead emphasise different ways of knowing environmental change.^[3] In this section we focus on social ways of understanding the environment, and specifically on understanding Kirulapana’s crocodiles.

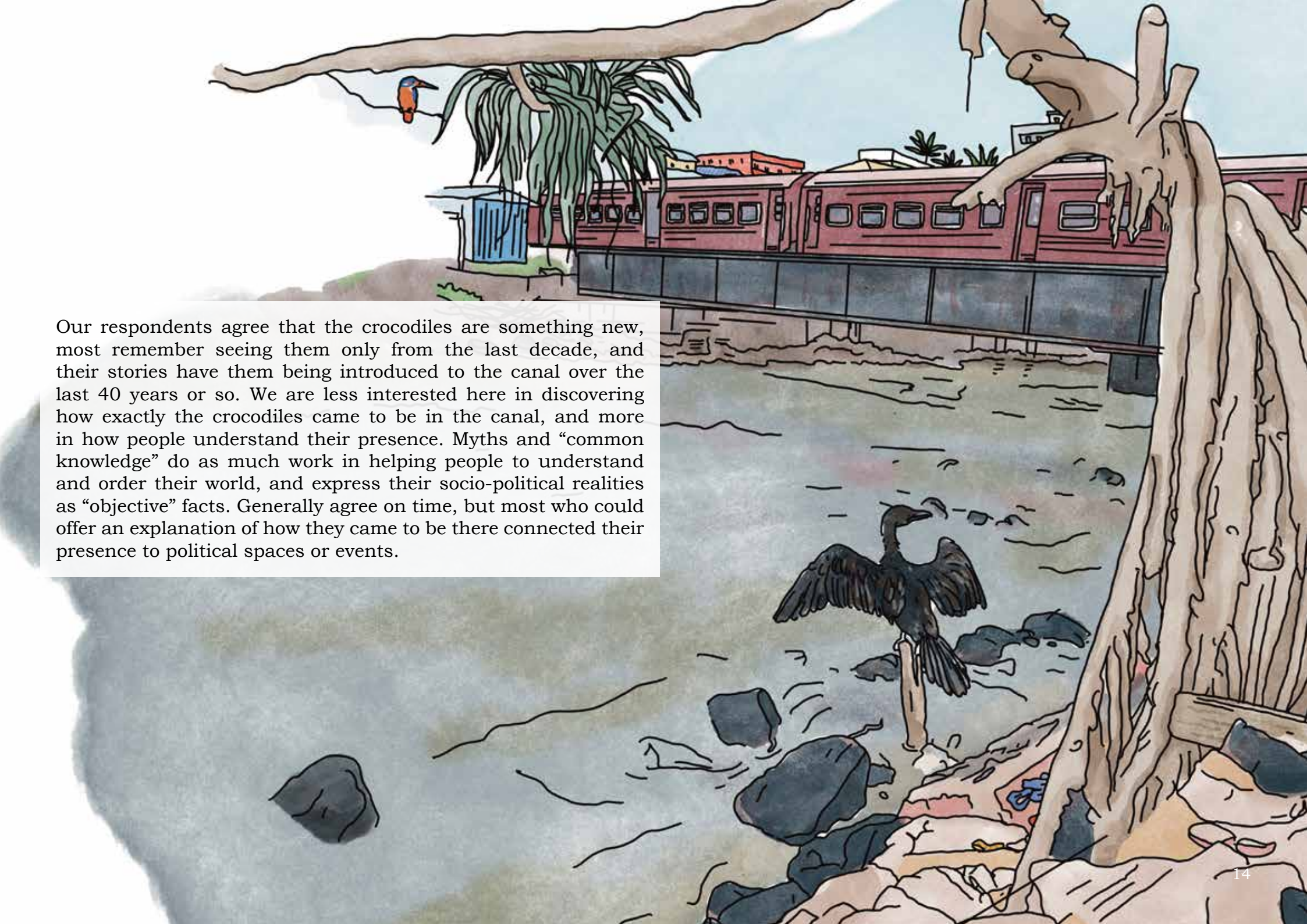


The ways that people know the environment, the ways they characterise it, understand it, and interact with it is thus loaded with multiple meanings derived from multiple knowledges, embodied knowledge, personal and collective memories, myth making and different forms of observation and measuring all shape how the environment is known. If knowledge is a construct, it is also an assemblage, we know by drawing on a range of information, each source of which is valid, real and useful to the knower. Here we use the Kirulapana Canal and it's non-human inhabitants as a lens to think about the ways in which the environment is both inherently political and politicised in its knowing.



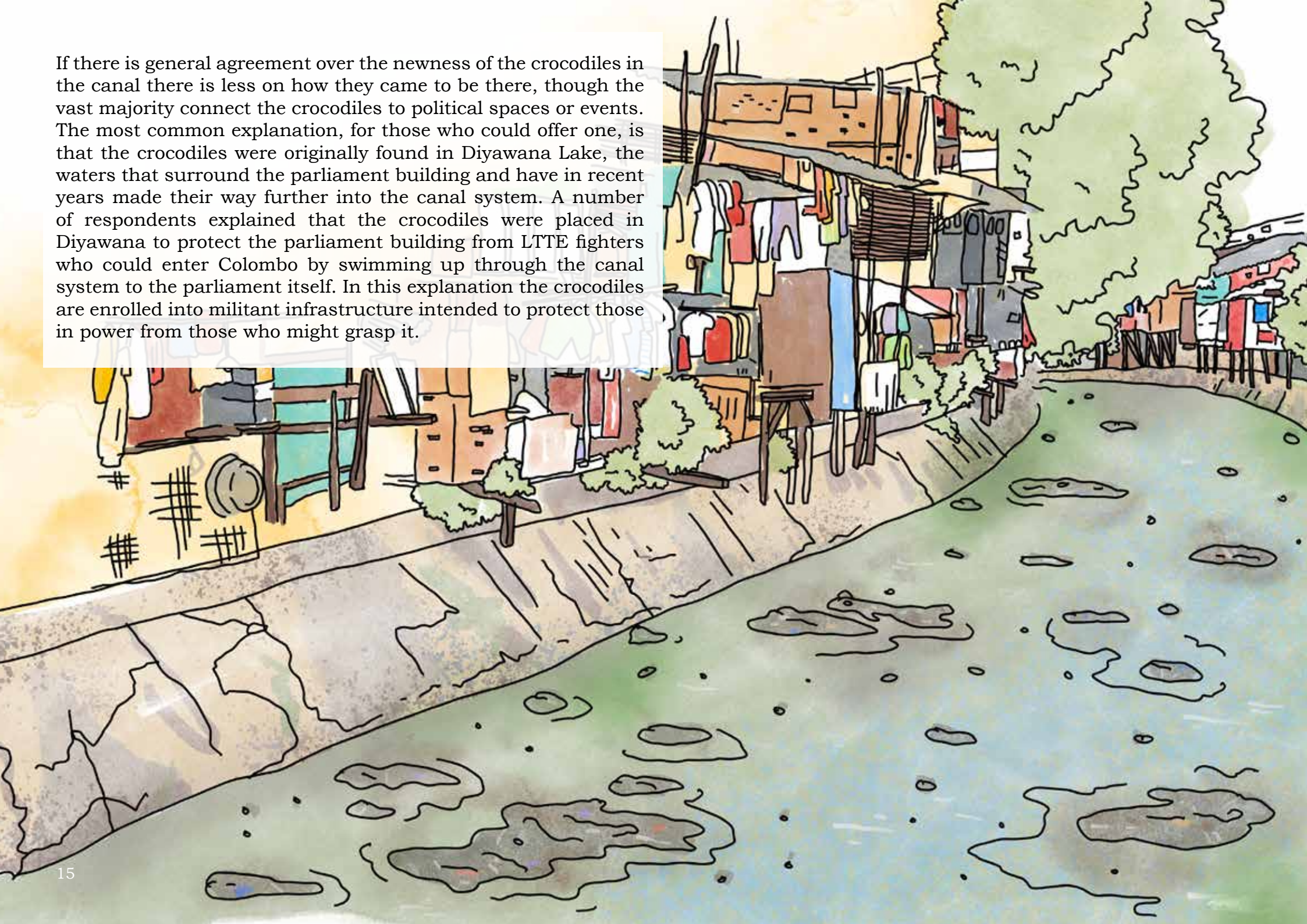


While the Kirulapana is contained and controlled to avoid the normal erosion from flowing water it remains a living waterway, inhabited by a range of non-human animals. Fish, birds, monitor lizards and infamously crocodiles use the canal alongside of humans. The estuarine crocodiles ^[4] are perhaps the most famous residents in the canal but how they came to inhabit the Kirulapana is point of contention. In thinking through the crocodiles and what they tell us about knowledge, the canal and the city more broadly we begin with what is generally known and accepted about the crocodiles - the points that people agree with, what some people might see as the “facts”.



Our respondents agree that the crocodiles are something new, most remember seeing them only from the last decade, and their stories have them being introduced to the canal over the last 40 years or so. We are less interested here in discovering how exactly the crocodiles came to be in the canal, and more in how people understand their presence. Myths and “common knowledge” do as much work in helping people to understand and order their world, and express their socio-political realities as “objective” facts. Generally agree on time, but most who could offer an explanation of how they came to be there connected their presence to political spaces or events.

If there is general agreement over the newness of the crocodiles in the canal there is less on how they came to be there, though the vast majority connect the crocodiles to political spaces or events. The most common explanation, for those who could offer one, is that the crocodiles were originally found in Diyawana Lake, the waters that surround the parliament building and have in recent years made their way further into the canal system. A number of respondents explained that the crocodiles were placed in Diyawana to protect the parliament building from LTTE fighters who could enter Colombo by swimming up through the canal system to the parliament itself. In this explanation the crocodiles are enrolled into militant infrastructure intended to protect those in power from those who might grasp it.



The second political event the crocodiles are linked to (though less commonly) is the need to protect those whose power is newly valued, namely the elite residents of Havelock City - a modern high rise development situated at the corner of Havelock Road and Kirulpana Canal. Havelock city is a contested development that has displaced low income residents to enable a luxury gated community ^[5] that according to the architect seeks to bring “New Urbanism” to Sri Lanka ^[6]. A respondent in a nearby low income settlement explained to us that a high ranking political actor came to the opening of Havelock city and found the appearance of their settlement lacking and elite residents they hoped would invest and live there. Thus the housing department was ordered to start the process of clearing the informal settlement and the people were at risk of eviction and losing their homes. Not only was the sight of their settlement unacceptable – but those who lived there and people like them (the poor) were seen as a threat to the residents of Havelock City. Thus, she insists the crocodiles were introduced to prevent people from accessing Havelock via the canal. Here to nature and non-human animals form a defence assemblage one intended (or so the telling goes) at keeping those with power safe from those with less.

[5] Nagaraj, Vijay Kumar. (2016) ‘From Smokestacks to Luxury Condos: The Housing Rights Struggle of the Millworkers of Mayura Place, Colombo’. *Contemporary South Asia* 24(4): 429–43. <https://doi.org/10.1080/09584935.2016.1244173>.
[6] Dhammathilaka, Senaka. (2011) ‘Havelock City in Colombo: An Advocacy of “New Urbanism” to Inculcate a True Urban Culture’. *Sri Lanka Journal of Real Estate* 5: 35–38.

Both of these crocodile stories begin to capture the ways in which myths, like any other discourse or imaginary are politically active. Urban Political Ecologists and others have argued that nature and social constructions of nature are “materially and symbolically produce[ed]”.^[7] Through the crocodile stories history and historical conflict in the former, and the politics of desirability in the latter are understood through nature and the very presence of non-human animals in the city. In knowing the crocodiles our respondents produce ideas about politics and place, the war and the ways it shaped urban socio-natures in Colombo and shifting ideas of who and what spaces count in modern Colombo. Their knowledge of the crocodiles intertwines with their knowledge of place, history and contemporary dynamics. Crucially we don't seek here to validate or disprove the knowledge of the residents we spoke to, fundamentally it doesn't matter if their explanations for the crocodiles align with any objective reality (if such a reality could in fact be determined) what matters is what people know and how this knowledge shapes the ways they navigate the city.



*Is the canal a healthy place
to live, work and play?*



As we have seen, the canal means different things to different people at different times in their lives. One interesting aspect to consider is how people living and working near the canal view its state of cleanliness.

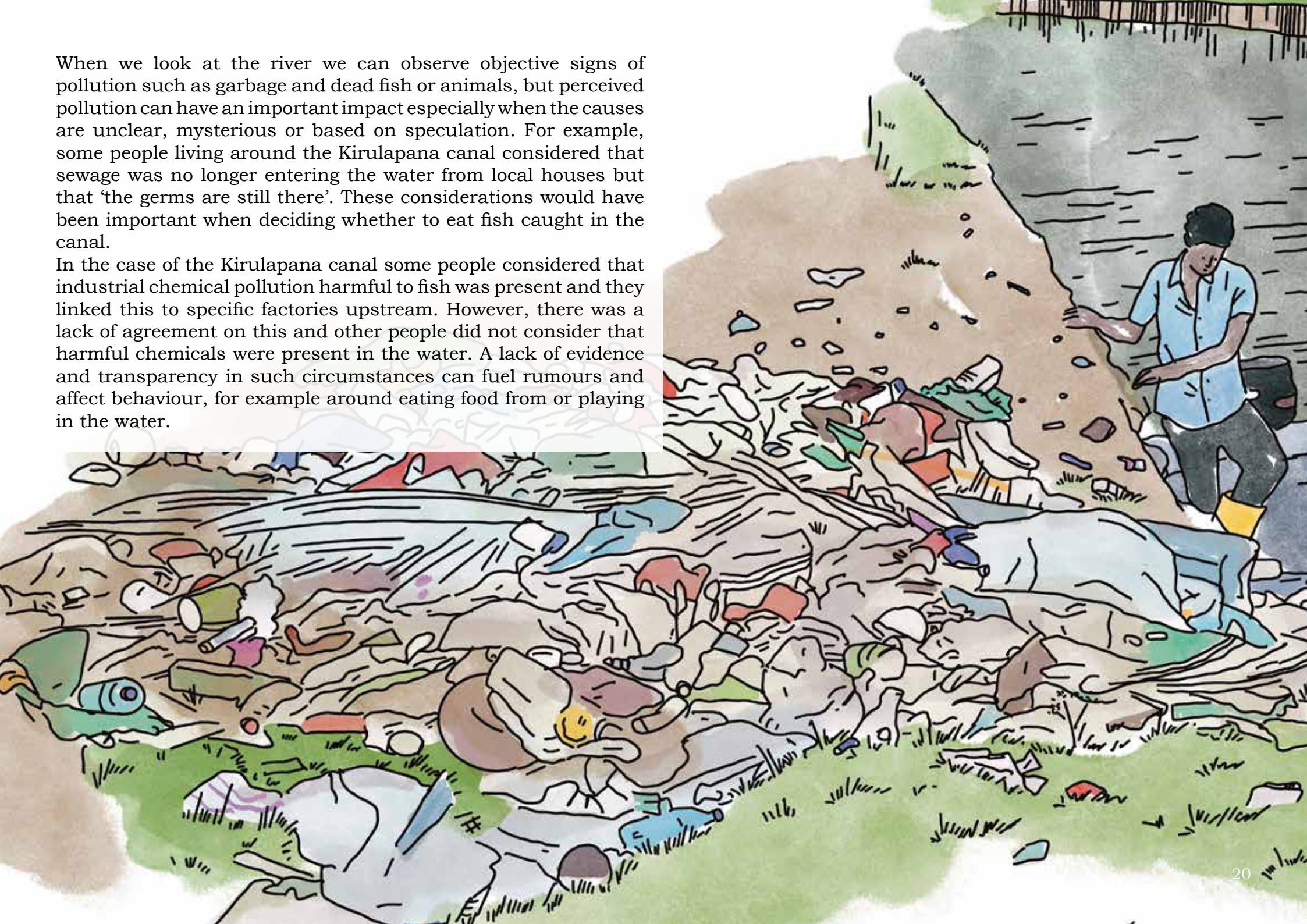
Pollution is a serious threat to many urban rivers and canals and local people viewed the Kirulapana as polluted and dirty. Their evidence for this was based on the garbage in the water; a bad smell; and reduced fish numbers, poor quality and higher mortality, and this was blamed on pollution from local houses and businesses.

We perceive using our senses of sight, smell, hearing, touch and taste. However, our perceptions also take into account our knowledge and experiences, and the knowledge and experiences of others passed on in stories and reports. These rumours might be from a different time or place, they may have changed in their multiple tellings, and they might be unconnected to any evidence but they are powerful and affect how we understand environments and behave in them.



When we look at the river we can observe objective signs of pollution such as garbage and dead fish or animals, but perceived pollution can have an important impact especially when the causes are unclear, mysterious or based on speculation. For example, some people living around the Kirulapana canal considered that sewage was no longer entering the water from local houses but that 'the germs are still there'. These considerations would have been important when deciding whether to eat fish caught in the canal.

In the case of the Kirulapana canal some people considered that industrial chemical pollution harmful to fish was present and they linked this to specific factories upstream. However, there was a lack of agreement on this and other people did not consider that harmful chemicals were present in the water. A lack of evidence and transparency in such circumstances can fuel rumours and affect behaviour, for example around eating food from or playing in the water.



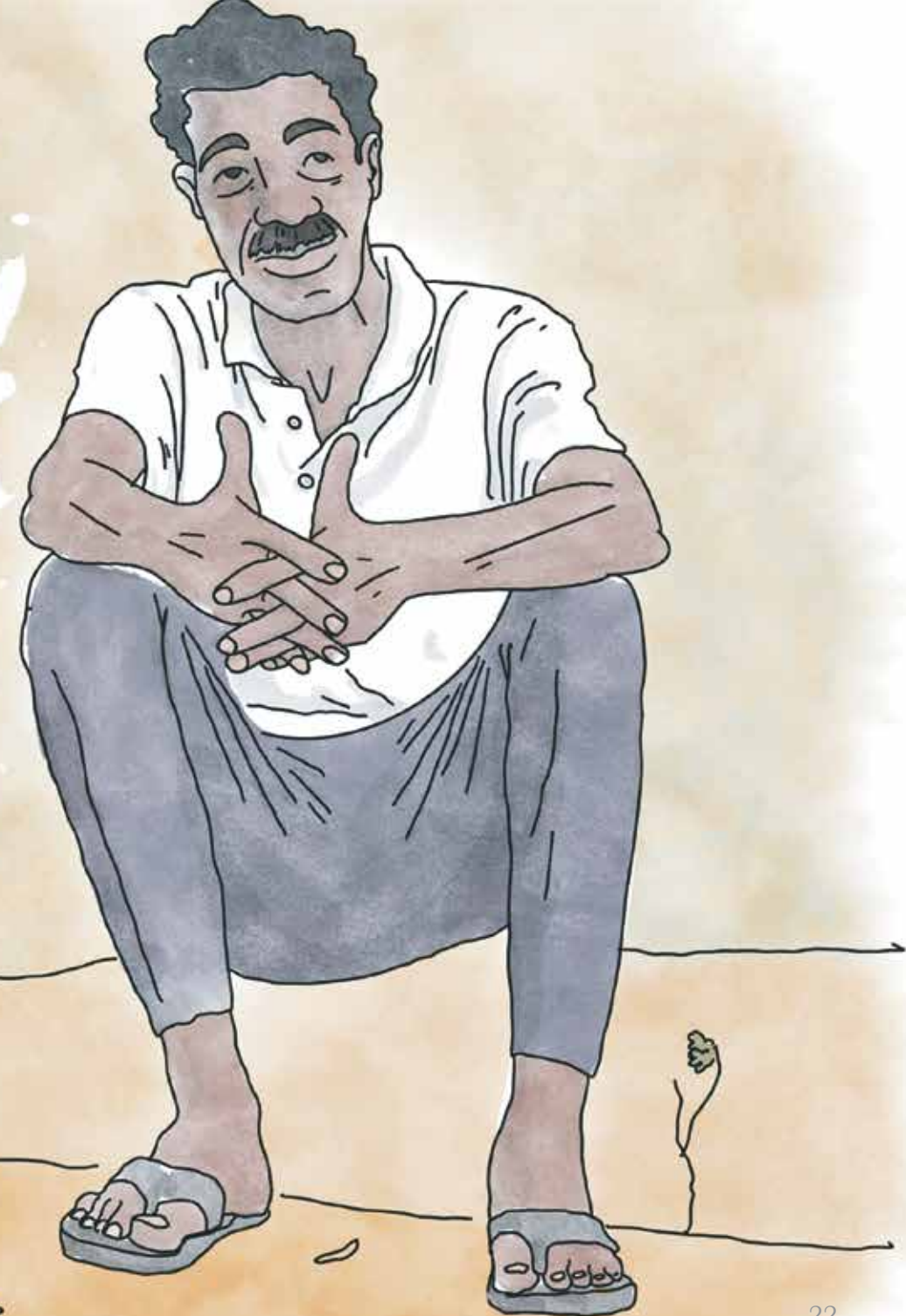
Throughout the world there are different perceptions and beliefs around food safety and what is good or not good to eat. These can be based on many factors including religion, cultural practices and ideas of what constitutes a healthy diet. A further factor is the enjoyment we gain from an activity that might be risky; in some cases the enjoyment or thrill is directly linked to the risk involved.

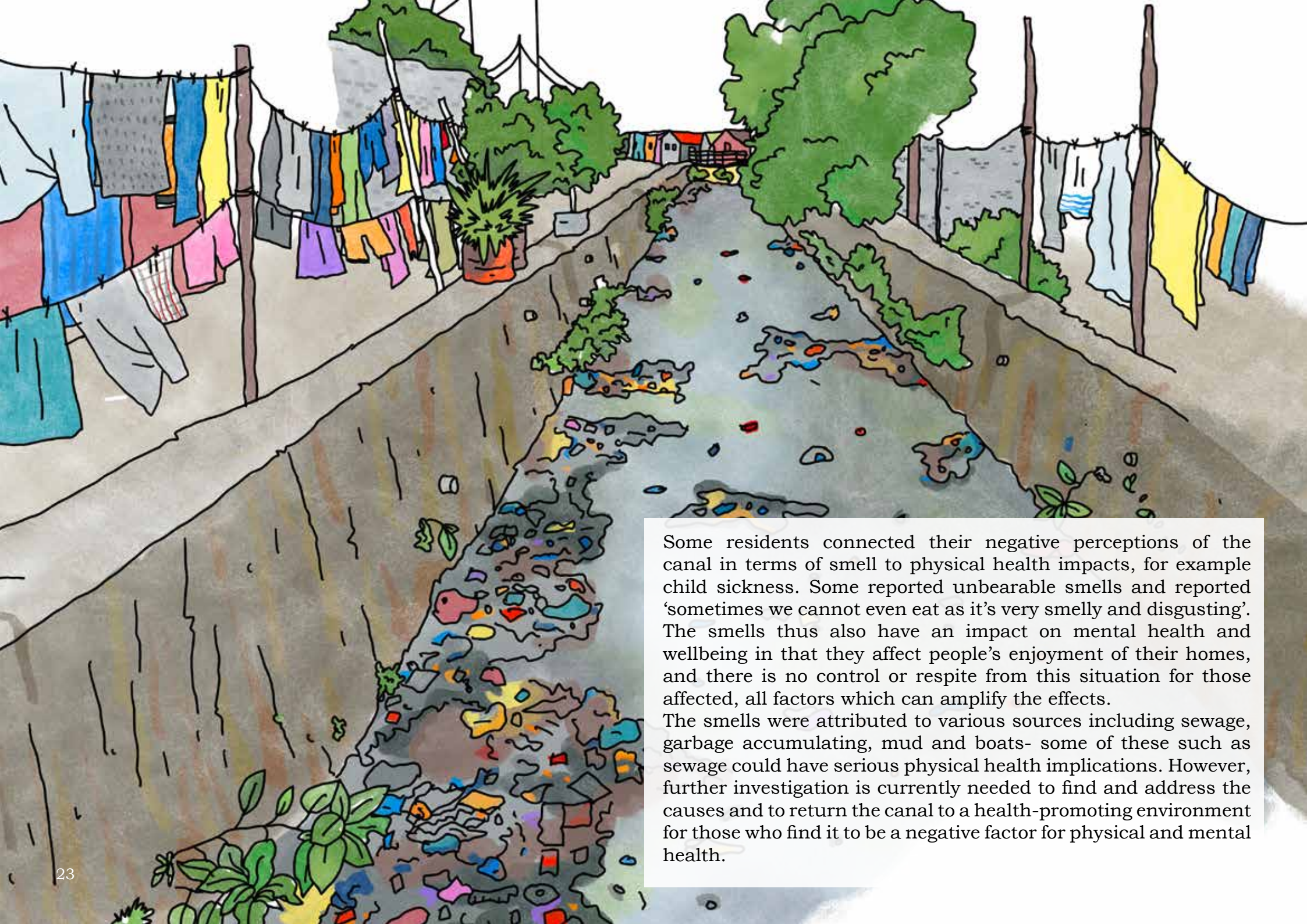
It is possible to objectively assess the quality of water and the safety of food, for example testing for the presence of certain chemicals, bacteria or heavy metals. However, without this information the communities living and working around the canal have to rely on other factors which contribute to their perceptions of risks and how they interact with the environment on a daily basis.



When we think of Kirulapana in terms of health, we can take a broad view in-line with the World Health Organization which defines health to be a state of physical, mental, and social well-being and not merely the absence of disease.

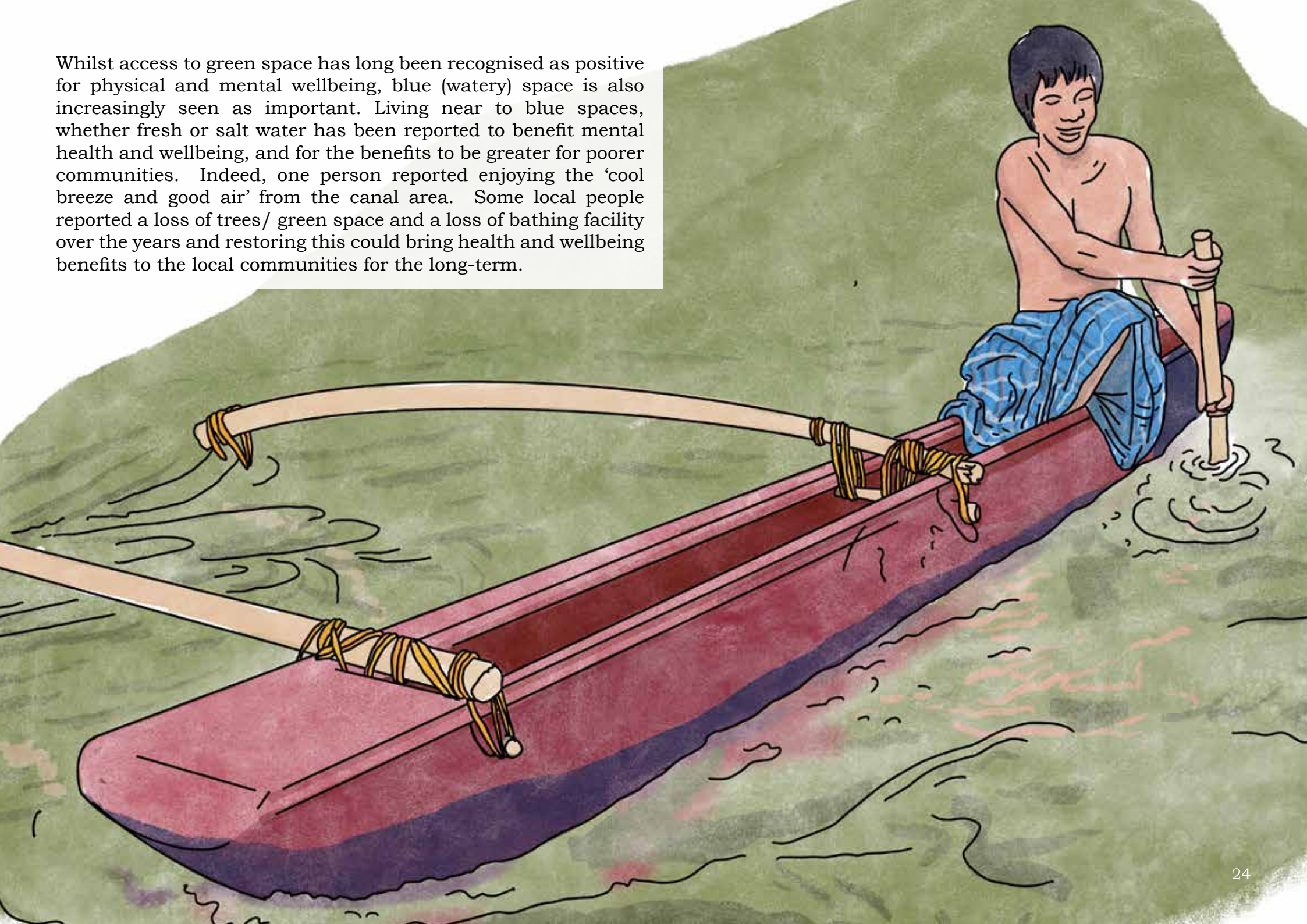
Perceptions of the canal are closely connected to health and ill-health ideas and beliefs, and the idea of Kirulapana as a healthy place for recreation has changed over time and particularly since the 1970s, with older local people reminiscing of their happy childhoods playing in and around the water. Some older people mentioned that they felt the canal had deteriorated over time and this was a loss for the current generation of children who could not play in the water saying, 'kids don't have the childhood we had'. Nostalgia and happy memories around the innocence of childhood can be powerful, but may or may not necessarily accurately reflect conditions then and now.





Some residents connected their negative perceptions of the canal in terms of smell to physical health impacts, for example child sickness. Some reported unbearable smells and reported 'sometimes we cannot even eat as it's very smelly and disgusting'. The smells thus also have an impact on mental health and wellbeing in that they affect people's enjoyment of their homes, and there is no control or respite from this situation for those affected, all factors which can amplify the effects. The smells were attributed to various sources including sewage, garbage accumulating, mud and boats- some of these such as sewage could have serious physical health implications. However, further investigation is currently needed to find and address the causes and to return the canal to a health-promoting environment for those who find it to be a negative factor for physical and mental health.

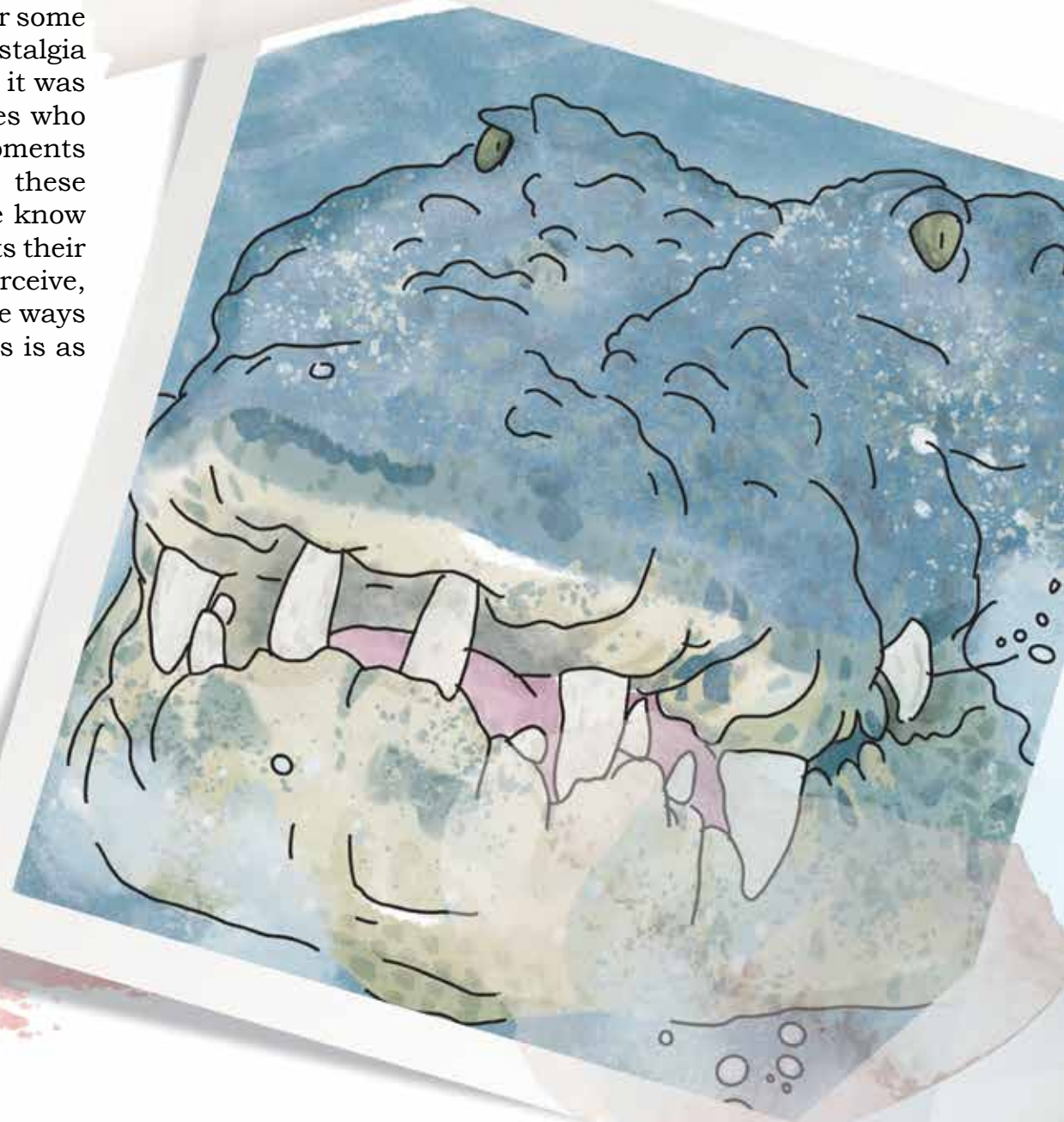
Whilst access to green space has long been recognised as positive for physical and mental wellbeing, blue (watery) space is also increasingly seen as important. Living near to blue spaces, whether fresh or salt water has been reported to benefit mental health and wellbeing, and for the benefits to be greater for poorer communities. Indeed, one person reported enjoying the 'cool breeze and good air' from the canal area. Some local people reported a loss of trees/ green space and a loss of bathing facility over the years and restoring this could bring health and wellbeing benefits to the local communities for the long-term.



Conclusion



In this book we have tried to illustrate the ways that knowledges are plural and always political. To do so we have focussed on the Kirulapana Canal in Colombo, Sri Lanka and given primacy to the everyday situated knowledge of those who live and work along the canal's path. As you can see there are many Kirulapanas, for some it is a space of leisure or beauty, for others the focus of nostalgia in contrast to its present state which they see as less than it was before. It can support health or threatens it. The crocodiles who inhabit it are not neutral neighbours but symbolic of moments of political upheaval. While we focus here on the canal, these findings reflect broader insights into the ways that people know and interact with the city as a whole. For each of respondents their Kirulapana is the real Kirulapana, it is the canal they perceive, live with and know; in turn these understandings shape the ways they interact with the canal. Each of these understandings is as valid as the next.



In reading this book you may have noticed that each section presents information in different forms and with a different tone. These differences reflect the three authors who contribute to the book and are intentional. There are multiple ways of knowing and multiple ways of sharing what we know. We invite you to consider how these different styles of communicating knowledge shaped your engagement with it. In turn to question why that is.



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