Ganga Katha

# SAMAGRATA

## Completeness of the Holy Ganga River

नमामि गंगे

INTACH

Azadi Ka Amrit Mahotsav

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Ganga Katha

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## COMPLETENESS OF THE HOLY GANGA RIVER

INDIA@75
आज़ादी के रंग भारतीय संस्कृति के संग | Azaadi Ke Rang Bharatiya Sanskriti Ke Sang

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This publication includes detailed research on the mythological and philosophical aspects of the Ganga, its cosmology, iconography, its worldwide renown over centuries and its several intricate linkages with the Indian civilization.

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"Our civilisation has developed near the rivers. Be it Sindhu, Ganga, Yamuna or Saraswati, our rivers and seas hold economic as well as strategic importance for our country. These are our gateways to the whole world."

**Narendra Modi**,
*Prime Minister of India*

# Message

The centrality of Ma Ganga in the lives of all Indians is undisputable. River Ganga, our national river is the lifeline of the country and symbolizes the culture, faith and sentiments of the people. Not just domestic tourists, the country witnesses several international tourists who are enthralled by the river and its rich and vibrant heritage – embodied in both natural and cultural dimensions.

The National Mission for Clean Ganga has collaborated with INTACH to conduct a study on the cultural mapping of natural, built and intangible heritage in 51 districts along the Ganga. This was an important initiative, as the identification and documentation of the rich natural and socio-cultural heritage of the river would play a critical role in reconnecting our citizens with the river and its heritage, as well as carry forward the concept of Arth Ganga espoused by Hon'ble Prime Minister.

The publication is indicative of the holistic vision of the Namami Gange mission as well as the approach which was adopted by INTACH to carry out the mammoth task. The publication covers all the myriad aspects of the heritage of the River Ganga and is dedicated to all the people who help us to preserve, conserve and rejuvenate it.

***Gajendra Singh Shekhawat,***
*Minister for Jal Shakti,*
*Government of India.*

# Foreword

Emanating from the glacier at Gaumukh, becoming the Ganga at the confluence of Bhagirathi and Alaknanda, flowing across the great Indo-Gangetic alluvial plains, and merging into the oceans in the delta, the Ganga River basin envelopes almost one fourth of India's geographical area. Ganga and its tributaries drain more than one million square kilometres of India, Nepal, Bangladesh, and China. While the river is an invaluable natural resource, it is also a source of spiritual solace and benediction to a large part of humanity.

The need of the hour is to involve people that live around the Ganga and its tributaries and derive sustenance from it, in the task of its conservation. If that is to be achieved, along with scientific knowledge and action, an appreciation of the mythological, historical, and folkloric ideas that represent Ganga is essential. We must also understand the immense heritage engendered by the fresh, flowing, holy waters of the river. The collection and dissemination of all ideas that have made Ganga so special to humanity is a task that must be given top priority. This book is a step in that direction.

The mammoth task of researching the heritage of Ganga is being presented as two book volumes and a four-film series. It has been undertaken to lay down, in easily comprehensible language, the key ideas that help make the river such a significant symbol of the essence of being Indian. An understanding of the river shall be incomplete if we do not consider the spiritual aspects and local understandings of the river and include them in our plans and communication strategies while thinking of revitalizing it.

While we must tackle the menace of pollution and variable flows scientifically, which we are doing on a war-footing, it is also essential to reach out to people along the banks, to inspire them to respect the waters in their daily interactions with the river. For long we have taken for granted the self-preserving qualities of the Ganga waters. Time has come for each one of us to come forward to preserve the river, for in this lies the key to our own survival.

I appreciate INTACH for bringing out this invaluable text and am sure the ideas outlined here will go a long way in planning and policy development for conserving Ma-Ganga.

***G. Asok Kumar***
*Director-General*
*National Mission for Clean Ganga,*
*Ministry of Jal Shakti*
*Department of Water Resources, River Development & Ganga Rejuvenation*
*Government of India.*

# Message

Critical as it is to ensure the 'nirmalta' [purity] and the 'aviralta' *(uninterrupted flow)* of the holy Ganga, it is also vital to realize that Ganga is a cultural stream. A better understanding of its natural, built and cultural heritage can only reinforce our actions and resolve to recover a vibrant mother river. INTACH is honoured and privileged to have been given an opportunity to enlarge the understanding of the Ganga and hopes that the voluminous and comprehensive reports of 51 districts, maps, films and publications will provide a better guiding context to development efforts along the main stem of the river.

***Maj. Gen. (Retd.) L.K. Gupta, AVSM***
*Chairman, INTACH*

# Introduction

This work was initiated in December, 2018, in the tenure of Shri Rajiv Ranjan Mishra, then Director General, NMCG who recognized that the heritage aspects of the holy river needed to be tracked and documented in order to create a holistic approach to river rejuvenation. We are indeed grateful to NMCG and its officers for entrusting INTACH with the instrumentality of carrying out this mammoth task. Although hobbled by the constraints of the Covid pandemic nevertheless the task of documenting 51 districts has been completed in 43 months.

Ganga, the name itself evokes so many different meanings for so many different people. A mind-boggling range of beliefs, histories, traditions, arts, and cultures of India have emerged from the river, that for most of us, is not just a flowing mass of water but also a goddess.

Stringing together the many aspects and attributes of the river and goddess Ganga from popular myths and beliefs, vernacular folk and classical forms, as well as recorded history, this work presents the key ideas that help Indians construct their world view around the river. Keeping these key ideas in mind while formulating plans and communication strategies for Ganga rejuvenation will make them more effective and long lasting. Many of the concepts presented here may seem obvious to most of us as devotees of Ganga, but bringing them together and tracing their mythical and historic significance has been no mean task. I am sure you will also find many insights and trends here that have escaped your attention.

Combined with this is a detailed description of the architectural, intangible and natural heritage along the Ganga. The two volumes also contain a district wise description of all aspects of heritage along the river. We are also bringing out a four film series, and a detailed map of the river. Together, these are invaluable resources in understanding the social and historic aspects of the mother river.

This work effectively presents the unbroken continuity of Ganga's veneration and her role in shaping India's rich cultural geography and diversity of thought and expression, reflected in our collective heritage. I am certain this work will go a long way in developing a holistic understanding of the tasks that lie ahead, and help realise the spiritual and scientific ideal of a clean and revitalized Ganga.

Thanks are due to NMCG Director General, Shri G. Asok Kumar, and the NMCG team, for supporting this mammoth task. INTACH Chairman, Maj. Gen. (Retd.) L. K. Gupta (AVSM), and Dr. C. T. Misra, Member Secretary, INTACH, with their sage guidance resolved many a difficulty in crossing the finish line, for which I am thankful.

***Manu Bhatnagar***
*Principal Director,*
*Natural Heritage Division,*
*Indian National Trust for Art & Cultural Heritage*
*New Delhi*

# Prelude

Water is sacred. We owe our life to water. Although only a small portion of water flows in riverbeds on the earth's surface, all great civilizations were born along the banks of rushing water. People prosper and settlements flourish if these waters continue to flow – clean, fresh, unobstructed. History is witness to the fact that when civilizations cease to respect the flowing, fresh waters of their rivers, they threaten their own survival.

Of all rivers that sustain humanity, Ganga is the holiest. On its banks, it is possible to reconcile modernity with seemingly archaic rituals and spiritual thoughts that have deep ancient roots. No wonder then, in contemporary times too, Ganga is revered as a goddess, cherished as Maa, Maiya, Devi, Gangaji, Mother. The river exudes a sense of the sacred, merging ecology and culture harmoniously with life rhythms.

Landscapes along the Ganga are undoubtedly visually captivating, but what really tugs at the heartstrings even more are the multitudes living and moving along its banks, and the bond they share with the mother river. The perennial flow has shaped our cultural identity, which, like the river landscapes, is also fluid. Ganga's immense cultural capital grants to the social fabric of our country, a pivot, a spiritual and cultural unity, amidst it's mind-boggling diversity.

Originating from a glacial cave 3,892 meters above mean sea level, Mother Ganga rushes onto the plains of North-India. Drawn to her life-giving waters, civilization has crowded her banks for millennia, harvesting sustenance from the soil that is just another of her several, less appreciated, benedictions. Today, over 600 million people, close to half of the country's population live on her largesse in the Ganga River Basin, a land mass that covers nearly a quarter of India. Over 40% of India's GDP is generated in this region.

But Ganga is more than

*Sunrise on the Ghats at Banaras*

just a river, a source of drinking and farming. Her earthly form embodies her divinity, she is the goddess that grants moksha, deliverance from the cycle of life, death, and rebirth. Pilgrims converge to the spiritual centres along her banks to bathe, pray and offer oblations. Over centuries, these towns and cities along her banks have developed enduring human networks offering diverse ritual and pilgrim services. The growth of these cities as centres of learning and sources of spiritual solace has led to the engendering of unique cultures, crafts, fairs, and festivals. For long, these aspects of the river have been overlooked, especially as a means to reconnect people with the task of conserving river landscapes, to derive long term human sustenance. While we look at removing pollutants and maintenance of river flow to revitalise the river, perhaps the most significant task would be to reconnect humans with the river, so that every individual begins to comprehend its indispensability to

their present and future.

This book, Samagrata, is a tribute to the Mother River, a labour of love of years of research and documentation conducted along the river, that seeks to create an inventory of cultural and natural resources along the Ganga. We have walked, waded, flown, driven, floated and slept along the banks, talked to a myriad cross section of people, and made a genuine effort to understand their interactions and emotional connect with the river and its waters, in essence surveying the main stem of the 2525 km long river all the way from Gaumukh to Gangasagar in a 10 km wide corridor spanning both banks over 51 districts in 5 riparian states, collecting vital data of gifts the river offers and threats humans pose to it. The next step is to ensure recognition and re-calibration of the information collected as an instrument towards preserving this nurturer of Indian culture, Mother Ganga.

The National Mission for Clean Ganga, or Namami Gange, as it is popularly referred to, through this monumental effort in partnership with the Indian National Trust for Art and Cultural Heritage or INTACH, has, perhaps, for the first time ever, prepared a comprehensive inventory of built heritage, cultural practices, and natural wealth along the river. This is an effort to understand the river as one holistic entity, from its glacial source to its deltaic mouth. The gigantic task has thrown up some interesting findings which could help complete the jig-saw puzzle that Ganga revitalisation poses.

As one sifts through the pages of this book, what one sees and reads is a distillate of thousands of pages of data and inventory taking, scientific observation, personal interviews, maps and audio-visual documentation, articles and scientific papers, listings, readings of reference material, map making and much more – covering a large landmass, that is diverse and at many points, inaccessible.

Here, the entire documentation of the Ganga has been condensed into two readable volumes with illustrations and graphics. While this volume covers how Ganga has come to be an epitome of the spirit of Indian-ness, with adequate attention to the rich cultural, built, and natural heritage flourishing on its banks, the second volume, titled Samakshata, gives a district-wise detail on these very aspects.

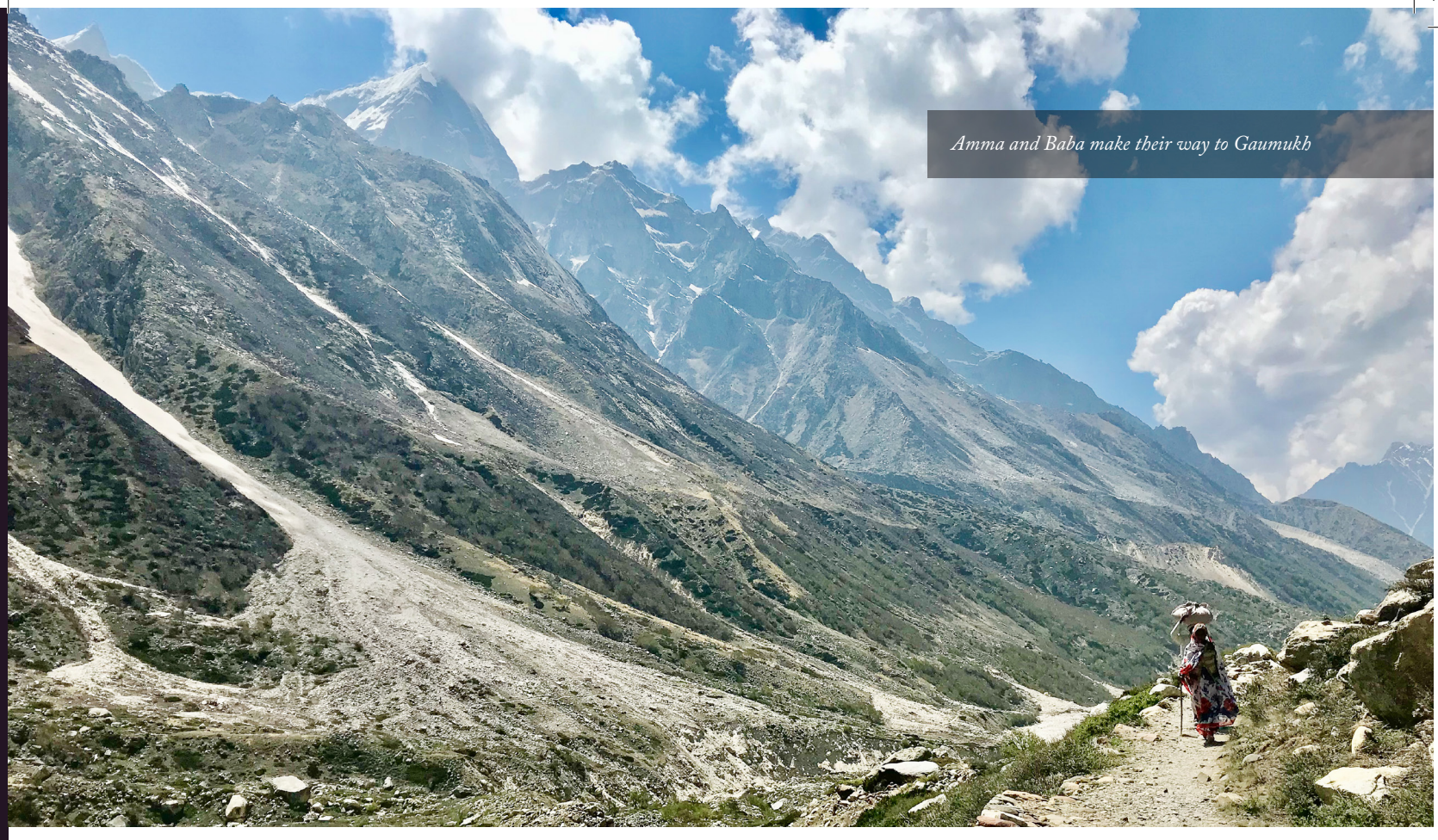
To develop a holistic understanding of the river, the monuments, the cultures, nature in and around the river, one ought to read this volume, in conjunction with Samakshata, the second volume, that gives a district wise description of sites along the Ganga. We also recommend you watch the four-film series titled Ganga Katha, each documentary covering one aspect of the river's heritage – spiritual, built, intangible and natural.

*Lokesh Ohri*

*The Bhagirathi Group of Peaks at Gaumukh. The naming of the peaks thus, points to strong connections between nature and culture.*

# Samagrata

*completeness*



*Amma and Baba make their way to Gaumukh*

Why would I need to tell you the story of the revered river Ganga? So many tales have bīeen told since ancient times, much has been written, many films made, texts published. What then, is left to be told, I wondered to myself as I began work on this book.

As I wandered along the Ganga – from itīs glacial origins in the Himalayas at Gaumukh, to the humid sweltering delta in the Bay of Bengal – on pathways, groves, and banks along the river, I realised, the river is still full of stories untold, facts waiting to be shared. These are tales of, from and by the people who live near or travel to its banks.

Close to Gaumukh, nearly 14,000 feet above mean sea level, while I took a breather, battling mountain sickness and intense exhaustion, I met this elderly couple, in their bare essentials, making good time for their appointment with the Mother River. They walked vigorously, and perhaps read the dreary look on my face. To give me some moral support, they stopped for a chat.

*"Bhaiya, the crop was good last year. So we just thought about taking a dip in Ganga Maiya. Took buses from Dhaulpur, Rajasthan, to Haridwar, then to Gangotri, where someone mentioned Gaumukh, so we started walking. And here we are! Must be close, this place, Gaumukh."*

Overcome by instinct and the academic training of engaging people in conversation, despite being out of breath and composure, I pointed out to the majestic snow-clad peak, the Shivling, shimmering in the crystal clear mountain air before us. *"Well, you are almost there, this is where the Ganga emanates,"* I said. They gave me an incredulous look. "The white stuff is snow, Ganga emerges from the glacier here," I tried to explain.

*"Acha, baraf hai!", they wondered. "This is the first time we are seeing it."*

*Pilgrims make their way to Gaumukh*

Amma, who barely had two teeth in her jaw, was wearing only torn socks, walking with no shoes on, on the sharp rocks where my high-ankle trekking shoes were nearly tearing-up at the seams. Mischievously, I asked her, *"Seems dada has forced you into walking all the way?"*

Back came a hearty laugh, *"Arre, this one is a lazy bum. It is me who forces him to come for pilgrimage!"*

Chocolates and cookies they refused, but fruit and water they accepted from our party. After this brief exchange, it dawned on me that for this elderly couple on the pilgrimage of their lives, and for many others across India, altitude, a sense of adventure, Himalayan grandeur, the thrill of being in the mountains, mattered little. What made them risk life and limb was a call from Mother Ganga, a call that made them drop everything else to come to this challenging environment, seeking solace in the icy cold waters of the sacred river. When one heeds such calls, the thin line separating life from death begins to blur. This is a sentiment I heard at Gangasagar, where the earthly form of the river merges into the Indian Ocean. Pilgrims from all corners of India, packed in like sardines-in-a-tin-can on the ferry from Gosaba to Sagar island. *"Sab tirath baar-baar, Gangasagar ek baar! (Other pilgrimages time and again, Gangasagar once in a lifetime!)"* murmured an elderly man sitting next to me. At that point it dawned on me that it would not have been very difficult for people coming for this pilgrimage, vulnerable as they would have been to cyclonic storms and the surging and ebbing of tides, to perish in this space, easily making it a one way ticket.

> ***"When you heed such calls, the thin line separating life from death begiins to blur"***

Every time I think of Ganga, I imagine Amma and Dada whispering in my ear, *"Go, tell the story of the Mother River. Do what you can to make sure the river that gave up the comforts of heaven just to serve us, is saved from the very people she has nourished for generations. Ask each one who cares to read this story, also, to tell it to everyone else they meet. If each one of us makes it their life's mission to keep it alive, and work for the cause, perhaps we will be able to repay a small fraction of the immense debt we owe to it."*

## Vishnu's *Rasa* on Earth!

At Gaumukh, as nowhere else along the river, one can get a glimpse of the serenity with which the river flowed in the heavens. We are all aware of how Ganga descended from there through the efforts of Bhagirath, but few would know how

she happened to be there. As the Shri Garg Samhita tells us, once Narada – the eternal messenger between heaven and earth – while passing through a remote valley in the Himalayas, came across musical notes, *Ragas* and *Raginis*, in their living form. These otherwise beautiful notes, however, appeared to be in acute pain, as if they had been subjected to untold torture for centuries.

A concerned and inquisitive Narada wanted to know the reason. He found out that these *Ragas* and *Raginis* were in fact spirits of divine music and having been sung and played imperfectly for eons by humans, their souls had been hurt, causing them to look sore and tortured. How could the situation be remedied, he wondered?

Soon, he hit upon a plan. Divine music could only regain its lost vigour once a complete musician rendered it with eternal perfection. That complete musician could only be Shiva, the clean-hearted *ashutosha*, the knower of all arts. Narada approached Shiva, who readily agreed to sing, however, with a difficult rider. He would only sing if at least one amongst the audience was a perfect listener. Now, it is as hard to find a *Kaan-sen*, a good listener, as it is to find a Tansen!

Not one to be disheartened easily, Narada approached Vishnu. Vishnu readily agreed to hear Shiva sing. Who wouldn't?

And so began the celestial concert. Shiva sang with perfect, full-throated abandon. Vishnu was mesmerised, completely lost in the flawless blend of melody and harmony.

*Ganga is as much Vishnu's Rasa as it is Shiva's Restraint*

The divine music was so delightful that it transformed Vishnu into *rasa*, the divine liquid that permeates anything of perfect beauty. *Ragas* and *Raginis* soon recovered their original exquisiteness.

Vishnu, however, remained in a trance induced by the divine music. He began to sway to Shiva's notes causing the *rasa* to splash around. Now *rasa* was too precious to be lost thus, so Brahma had to quickly swing into action. He collected this divine fluid in his *kamandalu*, the ascetic's begging bowl, and then let it flow across the heavens. This was Ganga, the celestial river, born of Shiva's music, that turned Vishnu into *rasa*, emerging finally from Brahma's begging bowl. Ganga, therefore, emerges as the only celestial entity that unites the trinity, the creator, preserver, and annihilator, thus. Perhaps it was this purity, born out of the threefold association with the divine, that forced her to relent to human entreaties. Upon the request of Bhagirath, she gave up the comforts of heaven to free humanities' souls. And, because of its many benedictions, humans called it Maa Ganga.

The question that comes to mind, then is, why humanity would violate their mother. The river may still be revered as divine, but today, she needs us. With an ever-growing population believing absolutely in the

self-purificatory nature of the river, callously dumping millions of litres of waste into it, Maa Ganga may not be able to endure us for long. In the beginning there was water, and life came out of it. But water – excess, contaminated, or the lack of it – could easily prove to be humanity's nemesis. The cycle of creation and destruction will continue as the gods continue their play, their leela.

Our ancient texts tell us that once Maharishi Agastya was walking on the seaside when he witnessed a strange sight. He saw a little, raucous bird, a lapwing, roll in the sand and then fly towards the ocean waters. Once above the ocean, she would shake her body violently while still in flight, dropping off the few grains of sand on her feathers into it. She would then come back and repeat the action. Intrigued, the great sage approached the little bird to inquire why she was doing this. The little lapwing informed him that she had laid her eggs in the sand by the shore. The ocean, egoistic as ever, had risen in high tide, taking her eggs away. She had pleaded to the mighty ocean to return her future offspring. But when did the haughty and the strong ever listen to the meek?

Therefore, she declared, she was attempting to dent the ocean's pride, trying to dry it with sand. The saint was left speechless. He marvelled at this tiny creature's resolve. In keeping with the saintly conduct of helping the weak, he pleaded with the ocean on her behalf. When the vast ocean refused to return the eggs, the saint decided to take matters into his own hands. He drank the ocean waters in one massive gulp. The lapwing found her lost eggs lying somewhere in the sands.

However, soon the world was in turmoil. Those dependent on the ocean for survival approached the deities, who then approached Maharishi Agastya. He had digested the waters by then. Only Vishnu, he suggested, could help. When the gods approached Vishnu, he explained that this was indeed a leela of the gods. Bhagirath was practising tough penance in the Himalayas, and very soon a river named Ganga would appear on earth to fill up the ocean again. And soon enough, the river once again filled up the oceans.

What this story tells us is that nature's cycle will continue. If we exploit nature beyond a point, nature will get rid of us. She will return, but none of us, or our future generations will. It also tells us that even though the little lapwing did not have the power or the strength, she had the resolve, and fate conspired to send the saint to help her. Humanity today has the power but lacks in resolve. We seem to be oblivious to the cause of the river that gives us our identity and survival.

Today, our belief in Maa Ganga has become an irresponsible one. We believe in her ability to free our souls, but do we really feel troubled at the state our mother finds herself in?

Let us come together to bring positive change, as we ponder over the 15th century mystic poet, Kabir's words,

*The river that flows in you,*
*also flows in me.*

Come, let us come together to save the river that flows through us all.

***"Humanity today has the power but lacks in resolve. Wei seem to be oblivious to the cause of the river that gives us our identity and survival"***

*Preparing Ganga sediment to shape the Durga idols in Bengal*

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Ganga
Katha

CHAPTER I

# What makes Ganga, Ganga

*At Har-ki-Pairi, Haridwar*

*Shiva is not hard to find if you care to look*

On a crisp, nippy, winter morning, as I walked through the bazaar at Hardwar – the name of the pilgrim centre is used alternatively as Haridwar, the former meaning Shiva's gateway, the latter as Vishnu's, a town situated on the banks of the mighty river Ganga as it descends from the snowy Himalayan heights into the vast plains of India – I noticed a group of pilgrims, browsing through knick-knacks, a bead necklace here, a toy there, until one of them caught a glimpse of the river flowing behind rows of shops through a window. He looked at the flowing waters, stupefied for a few seconds. Then, dropping whatever object had taken his fancy, he let out a cry of disbelief, exclaiming loudly, "Maa Ganga!"

The party left whatever had been distracting them in this colourful bazaar and rushed towards the river, jostling each other, teary eyed, as if witnessing the earthly appearance of a goddess. For a few moments, I, too, was swept away in this sudden tide of emotion.

I followed the group as they hurriedly descended the steps at Har-ki-Pairi. In unison, they bent down to touch the river, scooped out a little of her water in their cupped palms and reverentially anointed their own heads and those of others around. An old man, who was a part of the group, realized that I was observing them intently. Exposing a toothless grin of intense satisfaction, responding to my unarticulated question, and perhaps

***"...they bent down to touch the river, scooped out a little of her water in their cupped palms and reverentially anointed their own heads and those of others around"***

my lack of understanding, he said,

> *"Ganga ji pratyaksh hai!*
> *(The river Ganga is manifest!)*
> *Har, Har Gange!*
> *(Glory be to Shiva, Glory be to Ganga!)*
> *I have lived my life for this moment. I am now liberated!"*

It was an emotional moment not just for the pilgrims, but also for me, as I experienced how the flowing waters, believed expressly as emanating from Shiva's matted locks by this elderly pilgrim and his family, and millions across the world, were liberating to the soul in so many ways.

*"Baba (in reference to Shiva as a yogi and an elder), grace everyone with your benevolence,"* they all murmured in unison, as they bowed their heads and folded their hands in reverence to the sacred waters.

Later, on hindsight, I realised that after all, the group had travelled all the way from their village, expecting to see the river, make offerings to it, bathe in it. They would have already formed an image of the river at this sacred spot in their minds. A river was probably visible around their village too. What was it, in the sight of and proximity to the river now, that evoked such a cathartic response?

*Coming To The Ganga Is Always An Emotional Moment*

***"His (Shiva's) benediction to the world in the form of a controlled flow of the powerful Ganga gives him the image of Gangadhara..."***

At that moment I could fathom that the worldview of a pilgrim in the Indian civilization completely revolves around the triad of Shiva, Parvati, and the Ganga. On the one hand Shiva is the destructive principle, garlanded with bones and skulls, smeared in ash from funeral pyres, drinking *bhang* (a drink laced with cannabis) from skulls near rotting flesh, dreadlocks filled with snakes restraining the tumultuous waters of the river, throat blue from deadly venom, and on the forehead, the all-consuming grotesque third eye. Therefore, he is *Kapalika,* the skull bearer, *Bhasmabhuta,* the one smeared with ashes, *Vamadeva,* the crooked god, *Bhikshatana,* the one who wanders for alms.

Despite the dread this image evokes, Shiva is also *Bhola*, the simple one, easily deceived, generous to a fault and the greatest renouncer of all. He is *Ashutosha*, the one who is easily pleased. This image of Shiva, as the gullible one who gets readily involved in ameliorating the troubles of his devotees, has a lot to do with the

*People Interact With The River In Several Ways*

calming presence of *Shakti*, the female nurturing powers, in the form of Parvati and Ganga that complement him. His benediction to the world in the form of a controlled flow of the powerful Ganga gives him the image of *Gangadhara*, the one who restrains the mighty river in his dreadlocks, a concept that has drawn humanity to the Shiva-Parvati-Ganga triad since times immemorial.

It is this quality of giving that engenders deep faith in Shiva and his most visible and valuable benediction, Ganga. As excerpts from the popular material on pilgrimage, the Shiva Mahatmaya, describe the lord of the cosmos:

*Lord of the three realms…*
*Yourself a seeker of alms…*
*Settler of the universe…*
*You live in the wilderness…*

*To Indra you gave all wealth…*
*Nectar, you gave to the gods,*
*keeping the poison to yourself…*
*To Bhagiratha you gave the*
*Ganga, for everyone to bathe…*
*Lanka, you gave to Ravana…*
*To Rama you gave the bows and*
*arrows, to Hanuman, the Lord…*
*Yourself you remain in drunken*
*ecstasy, drinking bhang, from a*
*skull…*

The notion of giving, and of sacrificing everything for the other has been ingrained in the Indian psyche. Of all the benevolences of Shiva, the most potent and visible perhaps is the Ganga. The waters of this river trace profound connections to local histories, mass ritual, ecologies, and political economies.

As a universal solvent, water has the power to dissolve everything, dirt, pollutants, sins… civilizations too. Water has its own agency and has, for millennia, dictated the course of human social development. Small wonder then that, rivers, our prime sources of fresh water, are steeped in myth, history, poetry, and politics. Amongst the world's great rivers, however, few can match the allure of mother-river Ganga. The spiritual appeal and geo-spatial impact of the river is unrivalled.

For millions of Hindus there is no question that the river has divine agency. For them, the river is a goddess, the mythical devi Ganga, the self-cleaning river goddess that lived comfortably in the heavens but chose to flow on earth to rid humanity of its sins. The river's physical impact can be comprehended from the fact that it supports a staggering ten percent of humanity in all ways in which water is essential for survival – as habitat for biodiversity, for rituals, for nourishment, bathing, drinking, fishing, tourism, and transport economies – and much more.

*Ganga Arti at Banaras*

# Cosmology

To understand what makes Ganga, Ganga, it is essential to focus on the cosmology that surrounds the river as a sacred entity. Simply put, cosmology refers to people's ideas of how their world works. Societies and their traditions, folklore, mores, ways of life, all revolve around a set of events and activities that we can refer to collectively as culture. Based on ideas ingrained in their cosmology, people define their culture and affirm their own position within it.

Cultures are based upon paradigm shifting ideas which do not come from theory and experiment alone. Durable ideas are, in fact, inspired by experience, insight and influence. This paradigm shift is what the *sadhus*, mendicants along the Ganga, strive for. They build upon the accumulated wisdom and experiences of sages in the past and prepare themselves through austerities and deep meditation for that one moment of insight, where true knowledge is revealed. Being close to a sacred water body emanating from the Himalayas, one that is a benediction from the one who reveals, surely helps!

Ideas and thoughts about geographical entities, ingrained in human thought, stem from how rivers have chiselled away at and shaped civilizations. Ganga as a river is the fountainhead of what we can describe as the Indian civilization. Through simple everyday concepts that have become a part of the Indian belief system, the river has become the anchor of our existence. The river is so much a part of our daily lives, in rites of passage and in prayer and piety, that it easily translates into a potent life-force. Geographically, the river is essential to the sustenance of the largest mass of humanity surviving until today as the longest unbroken chain of human civilization found anywhere on earth, which makes Ganga India's lifeline.

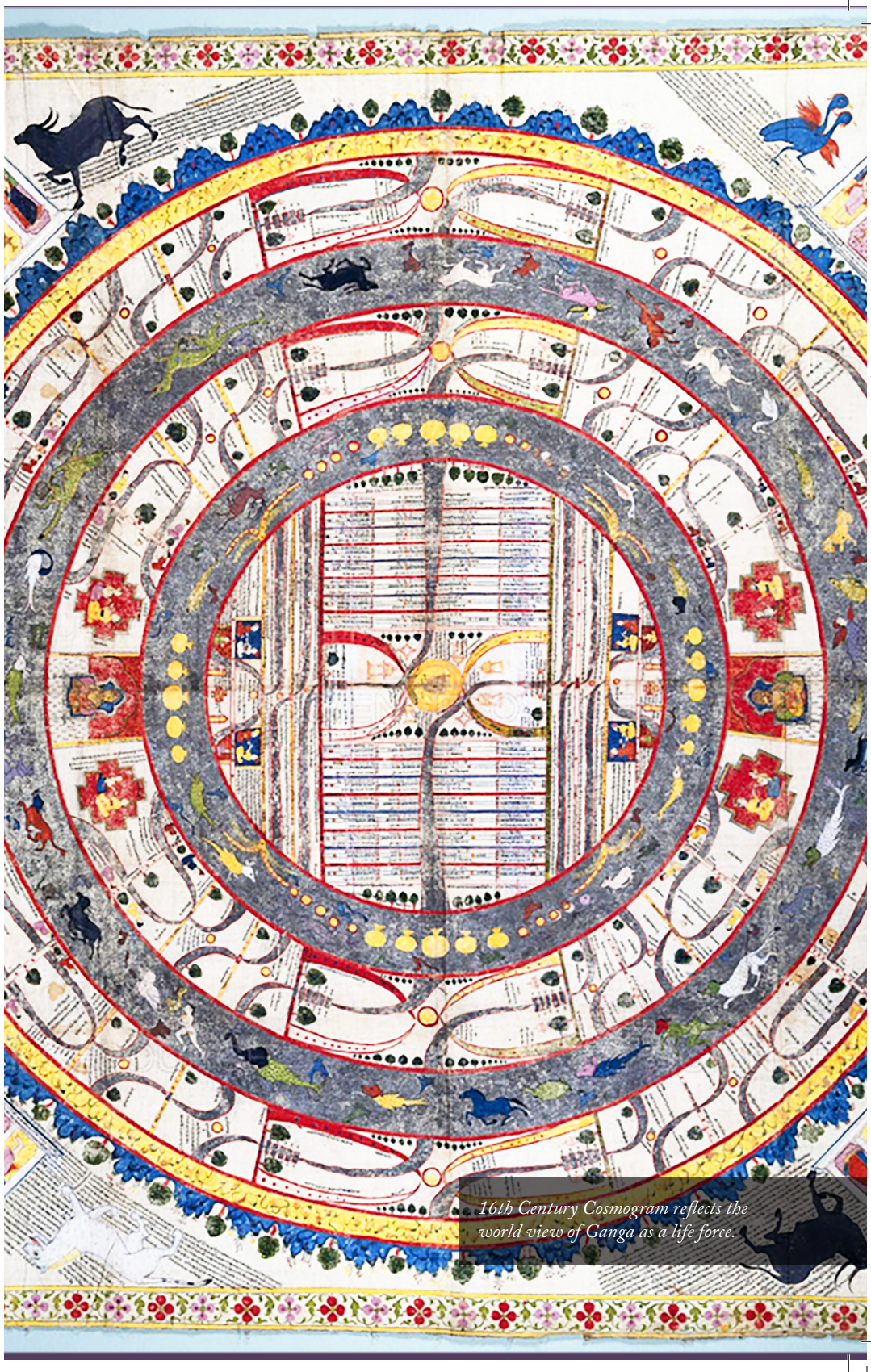
For most Indians, Ganga does not merely represent a geographical entity. It is the very source of life, a divine entity that cleanses one of sin, leading to the emancipation of the soul, freeing humans from the unending cycle of *karma* – life, death, and rebirth. The average Indian has taken to heart the symbolism reflected in the belief systems that he has begun to take the river for granted, dumping filth into it, as if the river will cleanse itself, in much the same way as it cleanses everything else that its waters touch. Even though they can perceive the obvious degradation of the river, they find it inconceivable that the very life source could be so contaminated today, that it could one day cease to support their survival.

Ganga has been addressed by many a myriad name, by gods and mortals alike. So numerous are the descriptors for the river that it is difficult to choose one. Yet, each of these names succinctly describe what the river means to Indians. For paucity of space, we bring to you only a few of the many Sanskrit names of the

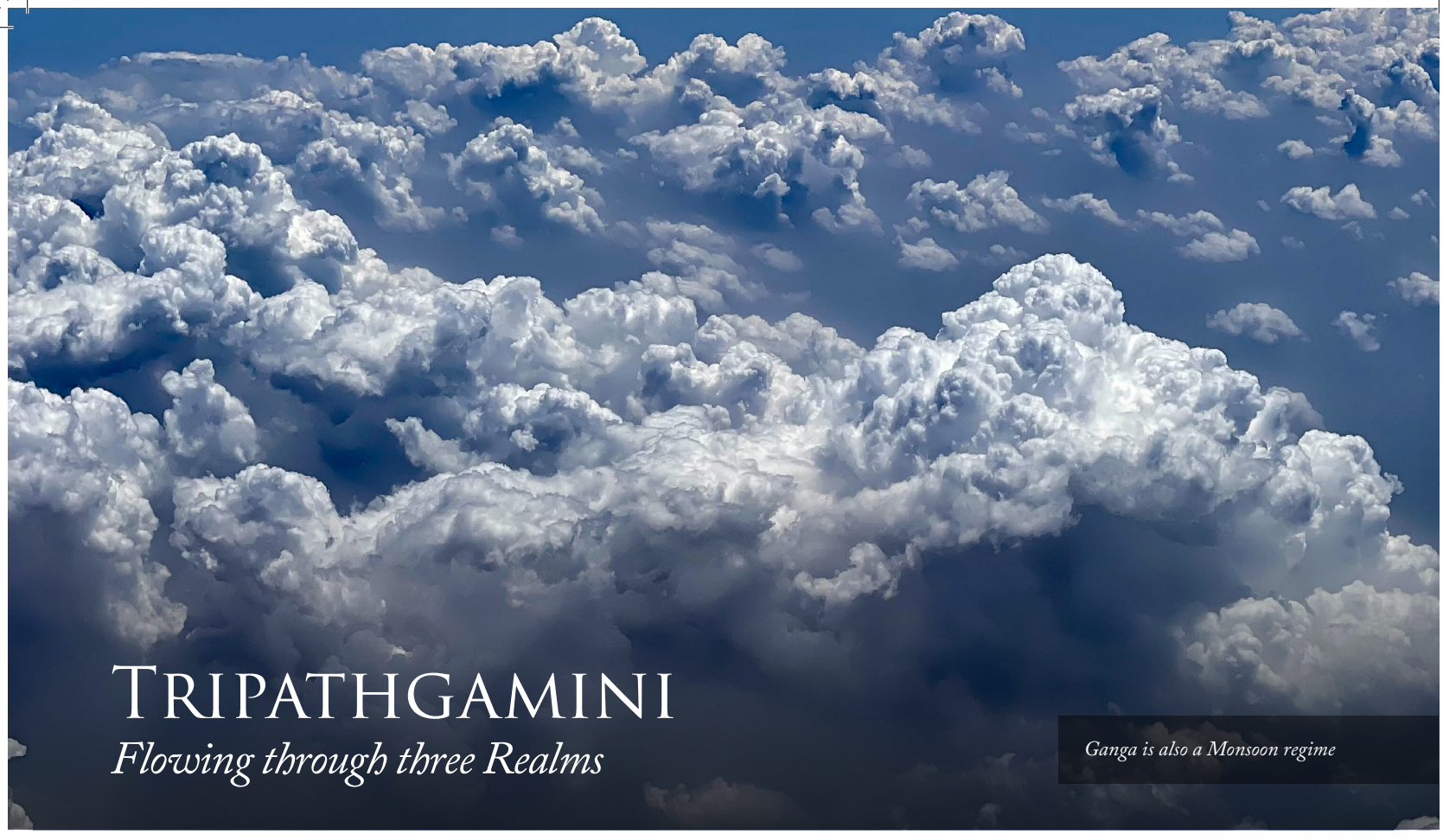
***"Simply put, cosmology refers to people's ideas of how their world works"***

Ganga which bring out the nature of the Mother River. These names have been taken from Gangastottara-shata-namavali, the 108 Names of the Ganga, an evolving text that is often recited on the banks of the river.

Let us, therefore, understand these terms as key aspects that have contributed to Ganga becoming the river of life and such a potent force in the common man's cosmological universe.



*16th Century Cosmogram reflects the world view of Ganga as a life force.*



# Tripathgamini

## *Flowing through three Realms*

*Ganga is also a Monsoon regime*

To most devoted Indians, Ganga is not just flowing water, but a divine entity endowed with unique properties. This may appear a bit far-fetched to the rational mind. Da Cunha (2018) attributes the colonial understanding of a river and its banks, the separation of land and water, to be a derivative from Alexander's concept and ancient Greek cartography. He explains, "Although Alexander the Great never saw the Ganges, he conceived of it as a flowing body of water, with sources, destinations, and banks that marked the separation of land from water." This view of the river is at odds with how the river is locally viewed as descended from the heavens, a complete rain continuity that does not conform to the lines of separation, containment, and calibration, what we take to be natural features of the earth's surface.

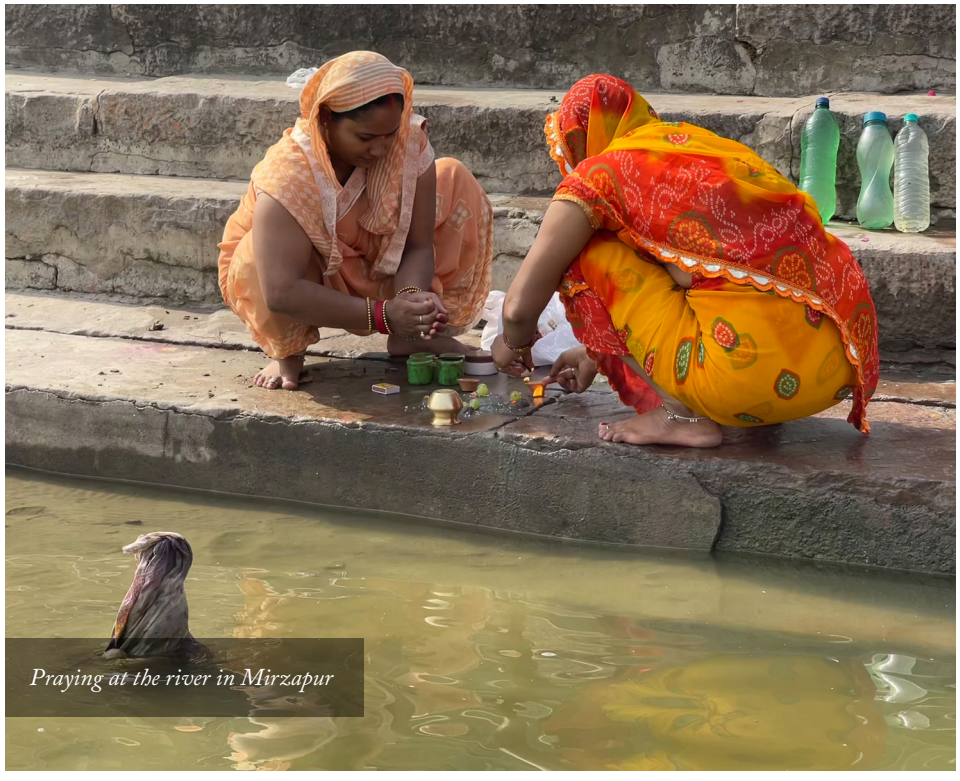
Take for instance the way we engage with Ganga. We have ghats, staired or natural embankments in towns that lead up to the river, enabling us to interact with the river – wading into it at will, offering the waters to the sun, anointing ourselves and others with it, bathing, and drinking, carrying away the waters carefully for performing rites. In the west, in urban areas by contrast, rivers are rarely open to human interaction in this manner and therefore, promenades are designed along the banks, neatly separating the waters from human touch and interaction.

The Rigveda (1.32.11-12) indicates that Ganga is channelled holy rainwater. Therefore, since the dawn of Indian civilization, Ganga is much more than a mere flowing water resource. To understand what the river

represents in Indian culture, we need to comprehend the entire landscape of thought, symbolism and literature that revolves around it. Ganga, therefore, encompasses the regime of moisture-laden Monsoon winds that bring prosperity and robustness to India's agrarian economy, as also the fresh waters flowing on the surface of the earth thronged by pilgrims, quenching the thirst of millions, and nourishing the aquifers, now under severe threat in the entire Ganga Basin.

Not for nothing is the river referred to as *Tripathgamini*, the river that flows through three realms. She is equally associated with the trinity of Brahma, Vishnu, and Shiva. An interesting story reveals that once Vishnu, the preserver was so overwhelmed while watching Shiva's cosmic performance, that he became *rasmaya*, i.e transcending into liquid form. Through his cosmic dance Shiva entered Vishnu, and through the true joy of appreciating the dance and transcending the states of matter, Vishnu became a part of Shiva, dissolving the dichotomy between Hari-Hara.

***"She (Ganga) is equally associated with the trinity of Brahma, Vishnu, and Shiva"***



*Praying at the river in Mirzapur*

According to Brahma Purana, during the marriage rituals of Shiva and Parvati, Brahma committed a ritual error and decided to walk out of the ceremony in shame. Shiva called out to him, created a *kamandalu*, the mendicant's begging bowl from the sacred essence of the earth, and filled it with anointed Ganga water. He handed over the *kamandalu* to Brahma, saying,

"O Brahma, take this *kamandalu* consecrated by me with *mantras*. Of all the five elements, water is the greatest. This sacred water is the best of all. One is liberated of all sin just by remembering this splendid pure water."

Thus, Ganga water, *rasa* flowing over the earth, is connected to the trinity and unites them. The Rigveda, as do several other texts, reminds us of the unity of God, and that we call him by many names. In the same way the river is one but called by several names. Ganga is not history or art, geography or literature, nature or culture, icon or life force, habitat or commercial resource, dam, or water channel, but all these and always something greater.

The aura that combines the significance of the river as a source of life, as a resource and as a sacred space is always greater than the sum of all its parts. Texts like the Prashna Upanishad have talked extensively of the natural expanse of the river. Despite

the growth of scientific knowledge about the river, and the filth and pollution causing visible putrefaction of the waters, Ganga as a deity is very much a part of us today, as it was centuries ago. This deep feeling of reverence needs to be stengthened if we want to create a force strong enough to prevent exploitative interests, inefficient municipal bodies, and callous individuals from dumping muck into the mother river and instead working to restore its pristine glory.

According to Sen (2019), Proto-Hindu scriptures pit human finitude against eternal creation (*kaala* and *akaala*) narrating stories of how the world came to have always straddled the divide between God/religion and nature, cosmology and ecology. Ganga is a visible uniting factor, going beyond the realm of human thought, flowing through the binaries of worldly and spiritual, that we increasingly tend to fragment our world into. The river that flows through the three realms, arrives on earth in the Himalayas, flowing through some of the most ancient forests.

*Generations may pass but the river flows constantly*

# Surnimnagaa

## *Celestial River*

*Himalayan Oak act as cloud forests in the Himalayas*

To most Indians, Ganga is a divine river, brought to earth through human endeavour, usually referred to as *Bhagirath prayaas*, the prodigious efforts of a terrestrial being. Before descending into the crest of Himvan, the matted locks of Shiva, Ganga flowed as the river of celestials. She was Jhanavi, the daughter of Jahnu.

Ganga's association with the Himalayas, the mountains which are considered the motionless form of Vishnu, renders her even more majestic and holy. Just as Ganga is proud of her origin close to the lotus feet of Vishnu, she is equally proud of her consequent emergence from the heavens, into the matted locks of Shiva.

For communities living in the Himalayas, from where Ganga emanates, the Himalayan Oak trees, locally referred to as *Baanj*, and their dense forests, also mixed with other species, are the true matted locks of Shiva. These trees date back to the beginning of the Pleistocene age. The extent of these oak forests has been fluctuating with the coming and going of the ice ages, the last one ending almost 12,000 years ago.

Oaks are an anomaly in a tropical country like India, but they form the backbone of the temperate moist forest biome occurring between 1,500 m and 2,700 m altitude in the Himalayas. Five Oak species are found in the Western Himalaya, of which the most widespread one is the *Baanj* Oak or *Quercus leucotrichophora*, that occurs as the dominant species up to about 2,200 m height. *Baanj* Oak grows mixed with species such as Rhododendron (*Rhododendron arboreum*), Indian Horse Chestnut (*Aesculus indica*), *Angyaar* (*Lyonia ovalifolia*)

and *Kaafal* (*Myrica esculenta*), but in many places, it grows alone in mono-dominant stands.

*Baanj* Oak stands can be best described as a cloud forests. At mid-elevational altitudes, precipitation is triggered easily by the warm moisture-laden winds hitting cool forest surfaces in the Himalayas. *Baanj* trees, being deep-rooted, pull water from deeper soil layers and transpire even when it is relatively dry all around, keeping the forest cool and alluring for the Monsoon, acting as rain-catchers. Their deep roots are believed to vastly improve moisture status of the soil and humidity inside the forest. Every highlander swears by *Baanj* Oak forests, and it is common knowledge that when *Baanj* Oak disappears, so do the streams, springs, and waterfalls, and eventually rivers. The dense vegetation and leaf litter of a protected Oak Forest plays a critical role in enhancing percolation of rainwater into the soil, emerging in surface springs and streams.

The leaves of the *Baanj* Oak are also favoured by the locals for composting and fodder. *Baanj* leaf litter makes a very good fertilizer because much less Nitrogen and Phosphorus is withdrawn by the tree at the time of leaf-fall, in a process called nutrient re-translocation, in comparison to other local species. This makes the fallen leaves of *Baanj* Oak rich in nutrients. The concentrated fall of the old leaves late in spring makes them easy to gather, and during this period, locals spend much of their time gathering headloads of *Baanj* leaves for composting – something that has kept the terraced fields of the region productive for centuries. It is interesting that Langurs (*Semnopithecus spp*) seem to love feeding and resting more in the Baanj Oak forests than Pine forests, that are far more extensive. The quality of the leaves obviously has a lot to do with it. The Oaks of the Himalaya are mostly evergreen, maintaining a dense canopy throughout the year as a strong flush of new leaves comes in before the old leaves are shed. This saves the steep slopes from erosion.

*Baanj* is, therefore, clearly the keystone species of the mid-Himalaya, true to the description of Shiva's dreadlocks, that regulate and form the Ganga. Each tree is believed to store thousands of litres of run-off water in its deep roots, transforming the Himalayas into the water towers of the world.

*Carrying Baanj leaves as fodder.*

***"Baanj is, therefore, clearly the keystone species of the mid-Himalaya, true to the description of Shiva's dreadlocks, that regulate and form the Ganga"***

Therefore, it is imperative to add more indigenous species like *Baanj* Oak to the Himalayan landscape.

Since Ganga was brought to earth by human persuasion, it becomes the duty of humanity to save it from contamination. This can only happen with the conservation of forest wealth, especially Himalayan indigenous forests, in the space where the sacred river is born, through human resolve to plant even more.

*Baanj and Deodars in the Himalayas act as cloud forests*

# Tarini

## *One that Frees the Soul*

*Cremations are a constant at Manikarnika Ghat, Banaras*

For the people of India, Ganga, the river, fulfilled so much, it had to be somehow commemorated. Let us look at some examples, as given by Sudipta Sen in his book, Ganga: The Many Pasts of a River (2019), to illustrate how the river has completely dominated the Indian mindscape.

The first example is of a king named Dindiga (Prithvipati I) of the Ganga Dynasty of Talkad, in present day Mysore, Andhra Pradesh, who lived in the 9th century CE. His story is recorded in a copper plate inscription and talks of him being badly wounded in the Battle of Vaimbalguri. Anticipating death but unwilling to lay down arms, and unable to reach the holy Ganga waters at such a defining moment, he himself cut-off a piece of his bone and sent off the fragment so that it could "enter the water" of the Ganga. His dynasty had taken its name from the Solar Dynasty of the river, and this self-infliction shows the immense value attached to the expiatory powers of the waters, also seeking a renewal of the blessings of ancestral lineage and veneration for the river, even far away in the South. This also explains how Hindus attach immense value to the ability of Ganga waters to rid one of sins, especially in one's last moments. No other river in the world has been a source of solace for so many millions over millennia, in the final rite of passage – death – the transitioning into another *yoni*.

The second example alludes to Panditaraja Jagannatha, whose tale is narrated by Sarma (1994). Panditaraja, the great scholar and poet laureate in the Mughal courts, was hounded by Brahmin orthodoxy for marrying a Muslim woman. He sought refuge by

the Ganga in Banaras. Forbidden to step into the sacred waters, lest he pollute them, he was moved to compose a eulogy to the river, the Piyushlahari. As he composed and sang each verse on the banks of the sacred river, legend has it the river rose and swept him and his wife away by the end of the recitation. Even though the veracity of the latter part of the story may be open to question, the poetic text itself is indicative of the strong bond between river and human. In fact, such stories abound along the river, and prove beyond doubt that the sacred river, unlike humans, bears no prejudice towards caste, creed, gender, skin colour, or faith. If one reposes faith in its emancipatory qualities, the river will grant deliverance and liberation from the vicious cycle of birth and death.

Since the Vishnu Dharma Shastra in the 3rd century, Ganga has played a vital role in Hindu rites of passage: birth, initiation, marriage, and death. For a river as vast as the Ganga, of such great significance to a civilization's survival, it is not surprising that ancient Indians thought of the river as sacred, a goddess in her own right. For instance, the Padma Purana refers to the centrality of the river in thought and action as:

*People's hopes from the Ganga on a boat. Installation by Sachindra Nath Jha.*

*What need of expensive sacrifices,*
*or of difficult penances?*
*Worship Ganga, asking for happiness*
*And good fortune,*
*and she will bring you heaven*
*and salvation.*

*Padma Purana V. 60. 39*

Today, one often wrestles with the question of how and why a river, ordinarily a mere geographical entity, has assumed such centrality in Indian thought. Basham (2004) expressed this sense of wonder as, "…but also understand why this mighty river has been for three thousand years considered holy, and why, at least in a poetic sense, she is holy, and why those who truly love her are, again in a poetic sense, *mukta – set free*" (emphasis author's). For many who revere the river, it essentially is a source of freedom from the cycle of birth, death, and rebirth. This idea stems from the thinking of a civilization that believes strongly in reincarnation, where death is not a cessation of life. The event of death,

> ***"For many who revere the river, it essentially is a source of freedom from the cycle of birth, death, and rebirth"***

*Mendicants live in the hope of breaking the cycle of brith, death and rebirth.*

for most people in India is, but, part of a long cycle where one's karma or actions and their intentionality determine whether you shall be able to ford the Vaitarini, the river of karma, to break the infinite cycle of rebirth.

The Vaitarini, a river as mentioned in the Garuda Purana and various other texts, lies between the earth and the infernal *Naraka*, the realm of Yama, God of Death, and is believed to purify one's sins. Furthermore, while the righteous see it filled with nectar-like water, the sinful see it filled with blood. Sinful souls are forced to cross this river after death. According to the Garuda Purana, this river appears in the path, leading to the southern gate of the city of Yama. It is also mentioned that only those who have earned poor karma, need to make an appearance at the southern gate.

However, other texts like the Harihareshwara Mahatmya in the Skanda Purana mention a physical river as well, that joins in the eastern ocean; he who bathes in it is supposed to forever be free from the torment of Yama. This concept first appears in the Tirtha Yatra Parvan (Pilgrimage Episode) of the Mahabharata, where the river is mentioned to be rising from the north and falling into the Bay of Bengal. The river also appears in the Matsya Purana and Vamana Purana. The Padma Purana reveals the etymology of Vaitarini in Vaitarini Mahatmya, where it is defined as *vai* (truly) *tarini* (saving) and narrates the legend wherein it was brought on to the earth from *patala*, the netherworld, due to the penance of Parashurama, resulting in a boon from Shiva.

***'Texts like the Harihareshwara Mahatmya in the Skanda Purana mention a physical river as well, that joins in the eastern ocean"***

Since the river is such a major physical feature and is so significant in Hindu mythology, it is only natural that it has a major presence in people's daily lives and rituals. One such role is that played in death rituals. Many Hindus want their ashes or bones immersed in the Ganga, because they believe that in doing so, they are guaranteed a safe journey to the ancestral realm. It is believed that one can receive liberation immediately through contact with the Ganga waters. This can occur either by dying in the Ganga, or simply having its water poured between the lips, right before death. The connection that Ganga provides to the heavens is once again observed in the belief that when one's ashes touch the waters, they are rejuvenated and strengthened enough to make the journey to heaven. If one is particularly devout, they will try to spend their last days on the banks of the river. They do this according to the belief that one who dies there will be delivered of all sin. These actions strongly support the belief that Ganga has the power to provide deep spiri-

*A family from Rajasthan making offerings to the Ganga.*

tual cleansing. Banaras, now known as Varanasi, witnesses the arrival of millions of Hindus each year who come to cremate their dead and wash in the waters. As the cremation pyre consumes the body, a priest will chant Vedic verses. The following day, the ashes are gathered and taken to Hardwar, at the headwaters of the Ganga. The ashes are then immersed in the holy water. Hardwar is also known as *Gangadvara*, or Doorway of the Ganges. People want to be cremated on the banks of the Ganga so that they are in her care for the onward journey. Another step towards Ganga rejuvenation could be an aggressive promotion of electric crematoriums with a visible and solemn immersion of ashes, granting dignity to all and sundry, protecting the economic and social interests of social groups involved in the last rites. This would reduce destruction of forests, and disposal of clothes and ceremonial materials, all consisting of non-biodegradable plastic, into the river.

Ganga serves in the dark regions as a redeemer. That is why an individual's remains, post cremation, are always offered to the river, to ensure rebirth in heaven. In Mahabharata's Swargarohana Parvan, the Pandavas, after having committed the sin of fratricide, wander through hell. Eventually, they are met by Indra, who leads them to the river in the netherworld, "Here is the celestial Ganga, sacred and sanctifying the three worlds. Wade through it and you will find your rightful place," he tells them.

As the Baul song penned by the Bengal poet Dombipada goes,

*The boat sails on*
*Between the Ganga and Jumna,*
*The lady brings her children*
*To the other shore.*
*Steer my boat,*
*Oh, outcaste woman,*
*While time is far off in the sky.*

The song signifies that the body is one's vessel, the *sadhaka* or the seeker

> ***"To most people in India, the waters of the Ganga are the waters of creation"***

must steer toward the farther shore of understanding through the storms of his own passion. The only mariner to guide him through this tempest is realization. As Lalan Shah (1774-1890), one of the greatest Baul poets, sings,

*Like a small fish he is playing in the water.*
*He encompasses the world.*
*But you find him only*
*in the mirror of your understanding.*
*He swims within us, we who are like the Ganges.*

*When the water dries,*
*the fish will fly.*
*Man is as deep as the Ganges.*
*Only love can enter there.*
*Lalan says, "I drowned to reach the depths."*

Ever since the dawn of civilization, Ganga has been a source of comfort for the dying. For centuries, renunciants have been initiated on the banks of the Ganga. Having performed their own last rites, they emerge from Ganga's womb, integrating their own consciousness with the ambient unity of the cosmos.

Even though some may fear destiny-day and therefore the river too, the benedictions offered by the river have been so many and so significant, that Indian civilization attaches only positive connotations to it. The river is, at times the child of Brahma, the creator amongst the trinity of gods, the constant companion of Shiva, the yogi who lives in the Himalayas and controls the elements, the metaphysical product of Vishnu the preserver, and mother to the Vasus and Kartikeya, the god of war. None of the chthonian affinities to Kali or Durga, the destructive forms of *shakti*, as in the sepulchral goddesses of Greece, are attributed to the river in Indian culture. Even in the underworld, the river points the way to paradise.

To most people in India, the waters of the Ganga are the waters of creation, the water used for all rites of passage rituals. Amongst the many sacred symbols of India, water is perhaps the most sacred, the real and the imagined source of life. As a wedding ritual drink in Hindu marriages, Ganga water is accorded the highest honour. John Baptiste Tavernier, a French jeweller, who visited India several times in the 17th century explains -

*Ganges water must be brought from a great distance by the Brahmins, in earthen vessels glazed inside, which the Grand Brahmin has laid his seal upon. This water is not given except at the end of the repast…for each of the guests three or four cups are poured out and more of it the bridegroom gives…so is he esteemed the more generous and magnificent. As this water comes so far and the Chief Brahmin charges a certain tax on each pot…there is sometimes two to three thousand rupees worth of it consumed at a wedding.*

In fact, the essence of Ganga as a river of deliverance is ingrained in the functional concept of *gati*, derived from the root verb for motion in Sanskrit – *gam*, which has a range of meanings: going, path, destiny, refuge, escape and fate. The name Ganga is also derived from this root. Therefore, someone dying near the river is expected to meet *sadgati* or escape from the cycle of life, death, and rebirth.

The celestial river was, as is well known, brought to earth through the efforts of Bhagirath, a human. The waters are there for every soul, giving hope to the wretched and the fallen, regardless of caste, class, gender, age, or offence caused. The river does not turn anyone away. The sacred waters are there for every soul, living or dead. This aspect itself makes the river remarkable.

*Worshipping the sun while immersed in Ganga waters. Appealing to the elements.*

# JAGAT-HITA
## *Nurturer of Civilizations*

*A gull with food over the Ganga waters. The river provides for everyone.*

While Ganga as a spiritual entity is well understood, the river as a resource is equally significant to India's vast agrarian and pastoralist economy. Since ancient times, the river has firmly anchored the nation's subsistence. According to Jain (1947), early Jain texts mention the bustling cities of Kampilya, Banaras, and Champa, amongst ten flourishing capitals of ancient India. All these urban centres were situated on the banks of the river or were connected to Ganga in some way.

Amongst the oldest refined sculptural Buddhist elements discovered in India, the tree spirits of Bharhut and Sanchi were conceived as *yakshas*. One figure from Bharhut stands on a *makara*, a defining emblem of the Ganga. According to Annandale (1924), both stupas here have short dedications containing the name Ganga. In fact, the *Yaksha* figure of Bharhut is named *Gangita*. Few centuries later, the tree and the sacred function of water, disembodied forces, gradually acquired a human valence. As early as the 4th century BCE, prayers began to be offered to Ganga as a remedy for drought. By the 6th century BCE, a whole new cultural ethos came to dominate the sub-continent, much as the Indus Valley Civilization had done almost fifteen hundred years earlier.

The region between Ganga and Yamuna, in ancient times, became India's political epicentre with later rulers, Mauryas, Guptas, the Delhi Sultans, even the Mughals associating themselves closely with the Ganga Valley. By this time Ganga was known from South-East Asia to Rome. According to Majumdar and Altekar (1954), Ganga and its several tributaries were used for trade and travel. Buddhist texts mention travel from Vaishali on the Gandak River, which

enters from the Nepal Terai and meets the Ganga just below Patna. By the 4th century BCE, Pataliputra had come to dominate the entire Ganga basin. Excavations in Hastinapur, dating back to early 3rd century BCE have yielded rich artefacts. At this time metal currency began to appear in the Ganga Valley. According to Bannerjee (1965), a new pottery type called black-polished-ware was well distributed at sites such as Hastinapura and Tamralipti, as far as Punjab in the north-west and Amaravati in the south.

The Mauryan Empire (322 to 183 CE) united the regions from Hardwar to Tamralipti. Excavations at Kumrahar, near Patna, reveal a pillared hall fronting a canal forty-three feet broad and ten feet deep. The canal leads to the Ganga by way of the Son river. Huge monolithic pillars of the hall are made of sandstone brought from the quarries of Chunar, near Banaras. Probably, the pillars were transported by barge on the Ganga. There are several mentions of a vigorous economy making Ganga a centre of the Indian civilization.

*Apples from Harsil Valley, Gangotri, are another gift of the river*

Chandragupta II, in the latter part of the 4th century further cemented the reputation of the river. The Gupta Empire disintegrated by the middle of the 6th century. For almost another fifty years (606-647 CE), those parts of the fallen empire were held together by Emperor Harsha from his capital at Kannauj on the Upper Ganges. Prayag, Kashi, Tamralipti were thriving, as were Hardwar and Champa, according to Xuanzang, the Chinese traveller. With the collapse of Harsha's empire in the middle of the 7th century, the Ganga Valley once again splintered into many pieces. Yet, the river retained its vitality as a unifying source of life and trade, an essential element in libations and rites of passage.

Such was a measure of veneration attained by the river that Chanakya's Arthashastra recommends that in time of drought, one should worship Indra, Ganga, the mountains, and the sea.

The ideas related to the Ganga that were gradually internalised by Indians firmly established the river as Mother River, a river of benediction, a panacea for good health and its waters, a substance that releases the soul from

***'The ideas related to the Ganga that were gradually internalised by Indians firmly established the river as Mother River"***

the unending cycle of birth and death. The waters are truly valued but what is equally incredible is that the waters could never be packaged and marketed for mass consumption. In a world that even sells clean air in aerosol cans, Ganga waters remain nature's gift that one must toil to reach out to, if one is seeking their efficacy.

Emerging from these ideas were also the prime symbols of the Ganga, the *Makara*, Ganga's mount, and the *Kumbha*, the urn of plenitude, both essential elements of the river's natural and spiritual culture.

The river, therefore, is not just *moksh-dayini*, the emancipator, but also *artha-dayini*, or the giver of economic prosperity. By the time it reaches the Bay of Bengal, it has quenched and created livelihoods for half a billion people. The river's banks and hinterland is a source of India's staple foods – rice, wheat, and millets – and sole guarantor of what author George Black (2018) describes as "two-dollar-a-day survival". According to him, even today, the river remains,

> *a seducer, a magnetic field that for centuries has drawn in millions more – empire builders and seekers for enlightenment, butchers and plunderers, scholars and teachers, painters and poets and movie makers, curiosity seekers and consumers of poverty porn, package-tour pilgrims and yoga-mat carriers and bungee jumpers and drug-addled deadheads, devotees of the sacred and the profane. They come to witness ineffable beauty and surpassing ugliness, the river as goddess and place of worship and the river as open sewer and factory-drain.*

Small wonder then, the priests at Hardwar, while performing the Ganga Arti on the Ganga banks, in invoking the mother river recite the *Shri Suktam*, the earliest Sanskrit devotional hymn, revering *Shri* as Lakshmi, the goddess of wealth, prosperity, and fertility. This hymn is found in the Rig Vedic *khilanis*, appendices to the Rig Veda that date to pre-Buddha times. The *Shri Suktam* is recited to receive the river's blessings, spiritual as well as economic.

*Calendar art image of Ganga Water being offered to Shiva Lingam.*

# Banaganga
## *The Immanent One*

*The river is everywhere, in electricity, in the vegetation and in the herbivores that feed on it*

Ganga is a palpable presence in Indian and Indic cultures. Communities across the vast region name their sources of water – springs, streams, rivulets, ponds etc. – as *Gupt* (secret) Ganga, *Van* (forest) Ganga, *Pataa*l (underground) Ganga, to reinforce their sacredness and ensure their protection.

In the Mahabharata, during the great war, when Bhishma lay on a bed of arrows and asked for someone to quench his thirst, it was Arjuna who fulfilled his wish by shooting an arrow deep into the earth to bring out a jet of water. The water spurted out and united Bhishma to his mother, Ganga, also, in the process quenching his thirst, liberating his soul. Until today, people with a premonition of death, ask to be placed on the ground and a few drops of Ganga water are poured into the mouth, granting the comfort of attaining salvation and bliss.

This final act also illustrates the omnipresence of the river in Indian thought. In many instances, waters of the Ganga, when added to another water body render it equally pure. For instance, Ganga Talao, commonly known as Grand Bassin, in the island state of Mauritius off the eastern coast of Africa, is a crater lake, about 550 meters above sea level. Located in the mountainous southwest district of Savanne, on the shoreline sits a temple along with a collection of small shrines dedicated to Lord Shiva and other gods. Ganga Talao, a lake alongside this complex is a popular place of pilgrimage in Mauritius, with many people visiting the site to pray, meditate, play with the monkeys, or simply walk by the lake and enjoy the landscape. Ganga Talao's history as a pilgrimage site goes back to 1887, when a priest dreamt of the lake's water springing from the Jahnavi, the goddess Ganga.

News of this vision spread rapidly among the Hindu community in Mauritius – mostly descendants of indentured plantation labour taken away from India by the colonial rulers, widely known as the *girmitiya*. When the priest subsequently visited the site, he found it looked exactly as it had appeared in his dream. Every year since then, pilgrims have walked to the lake at the time of Maha Shivaratri, helped along the way by locals offering food and spiritual support. In 2007, a statue of Shiva was unveiled and remains the tallest statue in Mauritius at about 33 meters. Pilgrims now carry handmade *kanwads* – portable shrines with water vessels to Ganga Talao, and once they find a suitable place at the water's edge, they perform their own private prayer ceremonies with offerings of fruit, incense sticks and lamps, not forgetting to add a few drops of Ganga waters sourced all the way from the Himalayas to the Ganga Talao. Vessels filled with this water are then offered to Shiva. In this manner, descendants of indentured labour from India, who have now made the Mascarene Islands their home, have found and founded their own sacred Ganga pilgrimage, miles away from the Mother River.

In the Mahabharata, when Ganga came to know that Bhishma lay on a bed of arrows in the battlefield of Kurukshetra, and had resolved to die only in the time of *Uttarayana*, she sent holy men, the rishis, to her banks in the form of swans, symbols of immaculate thought and action, who blessed him with the power to live on, until the sun reached its northern course in *Uttarayana*, when it was auspicious for Bhishma to cast-off his mortal coil.

Ganga Dussehra is a special festival in India. Also known as *Gangavataran*, this is a festival celebrating the *avatarana* or descent of the Ganga. Ganga Dussehra takes place on *Dashami* or the 10th day of the waxing moon, the *Shukla Paksha*, of the Hindu calendar month *Jyeshtha*. The festival celebration lasts ten days, including the nine days preceding this holy day. On this day, it is believed that all rivers and water bodies become Ganga. Truly, she pervades existence. In the far-east the term Ganga denotes water in general. In Thai and Lao languages, Ganga is known as Menam Thungka.

According to Sahai (2018), Khmer people share the Indian concept of Shiva having two female consorts. In Angkor, the artistes, in ancient times, produced images of Shiva with Uma as well as Ganga, and such images are called *Uma-Gangapatiswara*. A very well-known image of *Uma-Gangapatiswara* has been found at the famous Temple of Bakong at Rolous, near Angkor.

In Lingapura in Cambodia, three sacred waterfalls in the region of Ishanapura, were named *Tripathaga* in relation to Ganga, replicating the sacred geography of India. In a Sanskrit inscription of the Angkor king

*Uma-Gangapatiswara, Shiva with Uma and Ganga at Angkor Wat*

Rajendravarman (944-967 CE), the author tells us that this is a reference to the river's journey through the heavens, into the matted hair of Shiva and on the earth from the Himalayas to the Indian Ocean. In the 11th century during the reign of King Jayaviravarman, a village in the province of Kampong Thom was already known as village or *sruk* Ganga. In the fortified city of Angkor Thom, one of the prescriptions of Prasat Khleang mentions hundreds of dignitaries, including the one from the village of (*sruk*) Ganga, who took the oath of loyalty to king Suryavarman I.

An inscription of the 7th century from Champa names a Cham King Gangaraja, celebrated, "for his qualities, among which knowledge and heroism were recognised as royal qualities. The royalty difficult to abandon, he abdicated it. The view of the Ganges is a great joy, he told himself, and went from here to the Jahnavi".

In modern Khmer script, the river Ganga is written exactly in the same way and with the same consonants and vowels as in the Devanagari script. But the Khmer pronounce Sanskrit letter *ga* as *ka*, and long *a* as *ea*. So Ganga is written exactly as Ganga is pronounced: as Kongkea. According to the famous Khmer lexicographer Chuannath, in modern Khmer language, Ganga or Kongkea denotes the sacred river of India.

Interestingly, India and Thailand also share a common religious, cultural, and linguistic heritage, with Ganga at its core. One facet of this sharing involves festivals celebrated in Thailand, the most important among them being Loy Krathong and Songkran, both linked to Indian festivals. Thais celebrate Loy Krathong on the full moon in November and pay respects to the river by floating plantain leaf cups and asking for blessings from the River Goddess Ganga. River Ganga, even though distant from Thailand, still receives respect from Thai people on this day. Loy Krathong, in fact, is related to the Indian festival of *Kartik Purnima*, which gets its name from the month of *Kartik* (November-December). On this day people bathe in sacred rivers in the belief that Gods descend to earth and reside in the holy rivers that flow naturally. The Thai New Year, Songkhran, falls on the 13th and 14th of April every year. The word Songkran derives from the Sanskrit word *Sankranti*, a festival celebrated in all parts of Asia. It reflects the agrarian ways of life in India as well as Thailand. Both the festivals, celebrated in these countries, have a remarkable affinity in name as well as in their connect with Ganga.

*Songkran in Thailand is the new year, that coincides with the Indian Sankrant*

# NADAMATRIKA

## *Mother River*

*Worshipping the divine in a sacred tree on the banks of Ganga at Mirzapur*

Perhaps the most enduring image of Ganga is that of the mother, giving birth, restoring life, and granting immortality. The most known legend is that of Ganga and the Vasus, born to her through a union with King Shantanu, who fell for her human image upon at first sight. Once he proposed marriage, Ganga put forth only one condition, that the king would never question her conduct. After years of blissful living, Ganga bore him a son, but even before Shantanu could celebrate the birth of an heir, she took the child and drowned it in the river. Eight more were born and met the same fate until Shantanu could restrain himself no longer and questioned Ganga's lack of compassion. "There is no blame in what I do," she replied demurely. I am goddess Ganga and these children born to us are the Vasus, the celestials, who were cursed to appear in human form as punishment for their misdeeds committed against the sage Vashishtha. It is a terrible fate to live as a man once you have known immortality; and out of compassion, I agreed to bear them here on earth and restore them to the heavens the moment they were born. And now, according to our compact, since you have questioned my conduct, I must leave you." And thus, Ganga left the miserable Shantanu with the eighth son, Gangadatta, the son of Ganga. The emancipation of the Vasus, therefore, is ingrained in the Indian mind as the other reason for the appearance of the river, also strongly projecting the river as a liberating life force.

Besides the Vasus, Ganga is also the mother of Skanda or Kartikeya, the god of war, and the planet Mars. When the gods became powerless against the demoness Tarakasur, they realized that he could only be destroyed by a progeny of Shiva,

born without the involvement of a female force. Acceding to their pleas, Shiva finally released his seed, first to *Agni*. But the god of fire, despite the immense energy contained within, could not fertilise it and cast it into the Ganga. From this union sprang out Kartikeya or Gangaputra. The legend of Bhagirath, Gangadatta and Kartikeya and their relationship with Ganga is depicted on the four sides of a pillar in Pattadakal, Northern Karnataka in South India, installed in a temple from 740 CE, far away from the river.

These legends are told and re-told in Indian homes and temples and are now a part of the collective psyche of the country. They establish Ganga as the mother, the one that absorbs sin to cleanse mankind of them. Such stories, embedded in an extensive oral tradition and recounted several times in popular memory, have acquired a coherent and consistent narrative over centuries.

Not just the celestials and the devout, Ganga is a matriarch to everyone. A poignant Jataka tale describes a parrot-king who lived in a Ficus tree on the banks of the Ganga and felt immense gratitude for the tree's beneficence. This feeling sent a tremor through the Kingdom of *Sakka* (Indra), who, to test the bird's loyalty, magically withered the tree. Despite the destruction of its perch, the bird remained on the shrivelled branches. Impressed with the bird's perseverance, the *Sakka* granted the parrot any wish he desired. The bird quickly wished the recovery of the tree. Then *Sakka*, "took

*A good catch of fish ensures survival for many*

the waters of the Ganga and sprinkled them against the fig-tree stump." The tree quickly recovered in branch and stem. The river, therefore, is full of restorative powers as revealed in the Mahabharata, where at the end of the gory battle, the author of the epic, Vyasa, calls the slain armies from the depths of the river for a final reunion.

Such regenerative powers of the river are still visited in rituals like the Chhath Puja, where people assemble along the river Ganga if possible, or any other body of flowing water, if not, and women pray to the river for fertility and prosperity. Before the ploughing season, farmers fill Ganga water in a pot and set it in a special place in the field to get a good harvest.

The characteristic of being a caring divine entity points to her portrayal of being motherly and loving. As mother, she has the powers of compassion and comfort, and is a provider of blessings to her children (Kinsley, 1998). Her motherly care can lead to a place that is free from sorrow, fear, old age, and death. The goddess is also said to be aware of everyone's deepest fears and desires. Ganga takes these feelings upon herself, leaving the individual purified and strengthened.

Everyday millions bathe in and drink from the river and pray on

its banks. According to King (2005), using the water for washing, bathing, and cooking is a way to make sure one can receive Ganga's blessings and grace. Eck (1983) has described Ganga's waters as understood to be the life giving, immortal liquid (*amrita*) of mother's milk. The waters are life giving, both physically and spiritually. Physically, the river gives life to the land, making it fertile. Ganga can create and support life and is often appealed to, to ensure healthy crops. Spiritually, the water can purify and cleanse one of sin and infuse one with elevated feelings.

Flowing water has cleansing capabilities, and the power to get rid of one's daily impurities. This can be done by simply pouring water over one's head or taking a ritual bath. In these ways, Ganga fulfils the role of universal mother, protector, and purifier. Ganga, the mother, is someone who rids everyone of sins, as the embodiment of *Shakti*. As the bearer of prosperity and plenitude, Ganga has dominated Indian culture ever since civilizations dawned in the Indian subcontinent. In the 7th century, the Buddhist pilgrim Xuanzang, described the Ganga at Hardwar thus, "…pure streams of the river flow around on every side. The town produces native copper…pure crystal, and precious vases," describing a thriving population and a river of benediction.

Centuries later, the river remains the same, as Kalidasa described it,

*Fly then where Ganga on the king of mountains*
*Falls like a flight of stairs from heaven let down*
*For the sons of men, she hurls her billowy fountains*
*Like hands to grasp the moon on Shiva's crown*
*And laughs her foamy laugh at Gauri's jealous frown*

*Cloud Messenger or Megh-adootam, 50*

As the old saying goes, "Where the heart is true, there will Ganga be." Another colloquial adage is, "*Man changa to kathoti mein Ganga*". If the heart be pure, one will always attain a measure equal to Ganga. The Ganga has continued to gift us life and sustenance. Now, more than ever, the Mother River needs us to come forth and save it from atrophy.

*Paddies of West Bengal in the rainy season*

# Lingam Amrita

## *Defining a Sacred Space*

*A Shiva lingam adorned with flowers*

Commonly observed in temples across the world is the *Shiva lingam*. The *lingam* as the phallic symbol, indicates the primordial relationship between Shiva and the river. It is a depiction of Shiva as the lord of the mountains, and Ganga the mother and child of the mighty Himalayas. Ganga emerges from this strong symbology as the liquid essence of life, while Shiva is the organ of generation. She is the doorway to mystery while Shiva is the mystery. Shiva and Ganga are never far apart, in ritual or in any divine manifestation. Their conjunction reached its fulfilment in temple architecture by the 6th or 7th century.

Together, Ganga and Shiva illustrate a connection prefigured in the Vedas. Their relationship underlies the spiritual architecture of Hindu shrines as it evolves from its primitive antecedents. As the pillar or shaft evolves from the burial marker, from *stambha* to a *lingam*, the relationship between *purusha* and *shakti* is cemented. The relationship between the *lingam* and Shiva, or what archaeologists describe as Proto-Shiva, extends to the Indus Valley civilization, where several remains, such as round stone caps at Harappa and the well-known seal of the polycephalic yogi, have led scholars to attribute primordial native origins to the lord of the *lingam*.

In temples, a pot dripping water is placed atop the Shiva-lingam. This represents Ganga, the water of the *samsara* that forces Shiva to release his *tapa* for the benefit and welfare of the world. The most common ritual in Shiva temples is the pouring of water and milk over Shiva's *lingam* so that his energy moves outwards rather than moving inwards, benefitting everyone.

*"Just as Ganga finds its presence in our spiritual architecture, she also finds a place in our spiritualized physiology"*

*Tapa* thus transforms into life-sap, *rasa*, and sustains the world.

The temples that dot the Indian landscape are themselves as much a representation of the *agni* or fire aspect that represents the power of penance, as they are a representation of the *soma* aspect of water from the Ganga, represented in its eternal form. They also represent the co-existence of *purusha* and *prakriti*, nature and culture as complements and not dichotomies. As mentioned in the Rig Veda, "Water is female, and fire is male: life is born of their intercourse." The Sanskrit name for the sanctum of a temple, house of the womb or *garbha-griha*, establishes this primary meaning.

Just as Ganga finds its presence in our spiritual architecture, she also finds a place in our spiritualized physiology. The Hathapradipika, a yogic text from 14th to 16th century, explains the portals of spiritual ascension thus, "The goddess Ganga is *Ida* (referring to the *soma* qualities), the river Yamuna is the *Pingala* (of the *Agni* traits). Between them lies the *Kundalini*, the untapped source of spiritual energy resting at the base of the spinal cord".

Therefore, wherever there is Shiva, and he pervades the Indian psyche completely, there is Ganga too. The various manifestations of Shiva cannot be accomplished unless the river is present. As the Lord of the Burning Ghats, Shiva must stay close to the river. In the twenty-third verse of Mahabharata, Shiva declares, "I do not see any spot that is more sacred than a crematorium…of all abodes, the crematorium pleases my heart the most." Stevenson (1920) mentions a diminutive Shiva temple in Kathiawar, built on a spot where a king had been cremated. The shrine contained a *lingam*, and statues of Parvati and Ganga.

Ganga's relationship with the Himalayas and Shiva evolved naturally, especially since the emergence of the *Shiva-lingam* as the embodiment of the magic mountain. The ritual of pouring water on the *lingam* duplicates the river's descent from *Himvat* (the Himalayas), and the semen (*amrita*) flowing from Mahadev's endless

*Rituals by the Ganga*

powers of generation.

As lord of the mountain, Shiva pervades the Indian landscape. All temples with their myriad *shikharas* emulate the Himalayan abode of Shiva. In fact, the side elevation of the Kailasa Temple at Ellora is often compared with the skyline at Mount Kailas. The mountains have undoubtedly exerted a strong influence on the Indian mind since Vedic times, and Ganga is their purest essence that flows into the plains and the deltas, in the form of nature's bounty. No wonder, Ganga has emerged as the mother river for the masses of India, with the confluences becoming sacred spots.

*Shiva and Nandi's presence close to the Ganga, Birla Temple, Haridwar in background*

# Nupuraganga, Camaradharini, Vishnupadi

## *Association with the Trinity*

*Sadhu's play Shiva's drum at the Kumbha*

Ganga's association with Shiva as *Gangadhara* is well established through prevalent iconography. However, what firmly establishes the river as sacred in the Indian-Subcontinent is her association with all the three amongst the trinity: Shiva, Vishnu, and Brahma. Let us see how these associations are established.

The story of the *Trivikrama* avatar of Vishnu is well known and this establishes Ganga's association with the trinity. To neutralize the growing power of the demon king Bali, who had acquired it through penance, Vamana appeared before Bali as a poor Brahmin asking for alms. The king, who would not refuse a request from a holy man, agreed, and Vamana simply asked for as much land as his three steps could acquire. Bali gleefully agreed, not realising that Vishnu had assumed the form of *Trivikrama* and could encompass the entire universe in his three steps. When Vishnu acquired the terrestrial area with one foot and the entire celestial sphere with his upraised left foot, Brahma poured water on his foot as a token of his worshipful attitude. The water that emanated from Brahma's vessel cleansed the foot of Vishnu and flowed down to reach the matted locks of Shiva. This firmly established the origin of the river as *Vishnupadi*, the one that emerges from Brahma's vessel washing the feet of Vishnu, as it flows through Shiva's matted locks across the vast geography of India.

According to Chanchani (2019),on a Chalukyan period door lintel from Hampi, is found intricate workmanship around the *makara torana* design, meandering from the gaping mouth of one *makara* to another, with tiny figures of *ganas* in the manner of tiny medallions formed by an undulating creeper motif. The sacrifice of Bali, after Vamana begged for a

*"By 550 CE, Ganga begins to appear as a triple goddess, flowing in three realms or three directions"*

three-foot space from the king, the emperor of the demons, and Vamana's subsequent transformation into the universe encompassing *Trivikrama*, are beautifully depicted. Over the foot raised towards the sky, Brahma, standing in respect, is shown pouring from the *kamandalu*, the holy waters of the Ganga.

As Brahma hurried to worship the foot of Vishnu raised skywards in his *Trivikrama* form, by offering water from his vessel, Ganga fell on his *nupura* or anklet before falling to the earth, only to disappear into Shiva's locks. From here she descended as a small stream on Mount Vrishabha or Alagarmalai and was known as *Nupuraganga*. Though water dripping from hair is considered to render it impure, Shiva being *Vyomkesha*, or the one comprising the five elements or *panchamahabhuta*, adds to its sanctity, also leading to the metaphorical association of Shiva's matted locks with monsoon regimes, Himalayan forests, and their ecological biodiversity.

This narrative brings home the fact that Ganga emanates through the touch of not just Shiva but the holy trinity. Moreover, the river is not just touched by, but also purifies the holy trinity of Brahma, Vishnu, and Shiva, which is its unique attribute.

In several *Gangadhara* images, the ones showing Shiva with Ganga emanating from his matted locks, cosmology, astronomy, and spirituality synthesize into a depiction of Shiva carrying the celestial river on his head to facilitate her path down to earth, where she will nourish and purify humanity. Here, Shiva stands in a heroic pose, actively receiving Ganga in his hair with one of his eight arms raised in a supportive and welcoming gesture. His left-foot rests on the shoulder of a kneeling figure. His consort Parvati lovingly holds his raised knee, while standing somewhat coyly on his left side. Ganga holds her hands in *anjali*, cusped hands, offering worship to Shiva. Her lower body flows as the river, behind Shiva's head and down his right. The story told by this image is that of the descent of the Ganga, India's sacred river, from the highest heaven down to earth. It is the climax of a long story which starts with Vishnu piercing the fabric of the universe with his big toe and ending with Bhagiratha's spiritual dedication bringing the celestial river to earth. As Ganga's force would be unbearable to the earth, Shiva broke the fall of the river by trapping it in his matted locks. In this beautiful panel of *Gangadhara* Shiva in the Kailashnath Temple in Kanchipuram, Shiva can

*Ganga Doli enters the Ganga Temple, Gangotri*

*Palanquin bearer seeks blessings from Ganga Doli at Gangotri Temple*

be seen holding Ganga with two dogs being part of the scene.

By 550 CE, Ganga begins to appear as a triple goddess, flowing in three realms or three directions. This gives the river the triple identity of overcoming space, time, and mortality. As a river with three attributes, Ganga is said to flow on earth, in heaven and the netherworld. In the heavens she is the *Mandakini*, on the earth, the *Bhagirathi*; and in the netherworld, *Bhogawati*. In Indian sculpture, the descent of the Ganga is often equated with the humbling of a river that once threatened to inundate the earth, and now finds itself seeking refuge in Shiva's matted locks. This journey of the river from *Samharamurti*, the harbinger of destruction to *Sharanarthini*, the one seeking protection also relates to the surrender of the mighty river's ego. Shiva as *Gangadhara* is usually depicted as nonchalantly pointing two fingers towards a *jataa*, or matted lock, amongst the myriad locks on his head, suggesting that like a mere drop of water, Ganga would remain there. Therefore, while Shiva would accept Ganga as his consort along with Parvati, he would also reduce her supreme ego by restraining her.

In the 11th century Pala sculptures from Sankarbandha, Bangladesh, of Shiva dancing on a bull, there is a peculiar representation not of Ganga and Yamuna flanking Shiva as described by Kalidasa in Kumarasambhava, but of Ganga on one side on her *makara*, and Parvati herself on her lion, gently swaying the *camara (whisk)* for the lord. This points to Shiva, like Vishnu and Brahma having two consorts. A clear mention of Shiva with two consorts, Parvati, and Ganga, is found in a Cambodian inscription, referred earlier, and there is also a mention of the sculpture of Shiva with both his consorts flanking him made in gold by a Cambodian king. The 9th century headless sculpture of Shiva, Ganga and Uma at the Temple of Bakong in Cambodia also points to a similar representation.

As Ganga, restrained by Shiva, begins to flow through the three realms, she matures and realizes her good fortune that Lord Shiva accepted her as a consort. In a remarkable Gupta period sculpture from Rajouna, Bihar, dating back to the 5th century, the river is shown approaching Shiva, riding the *Makara*, respectfully kneeling with her hands folded in supplication, with a parasol held over her head by a maid, as would befit a bride. Ganga is clearly depicted as a *nayika*, an anthropomorphic figure and not a mermaid anymore. Shiva, in turn, is overwhelmed by her humility and grants his acceptance by holding out a lock of his hair, depicting her abode.

Henceforth, Shiva is called *Uma-Gangapatiswara*, the husband and lord of Parvati as well as Ganga, and depicted as such by several artistes. By agreeing to accept Ganga as a consort, Shiva, in true yogic detachment, brings in an element of domestic discord with

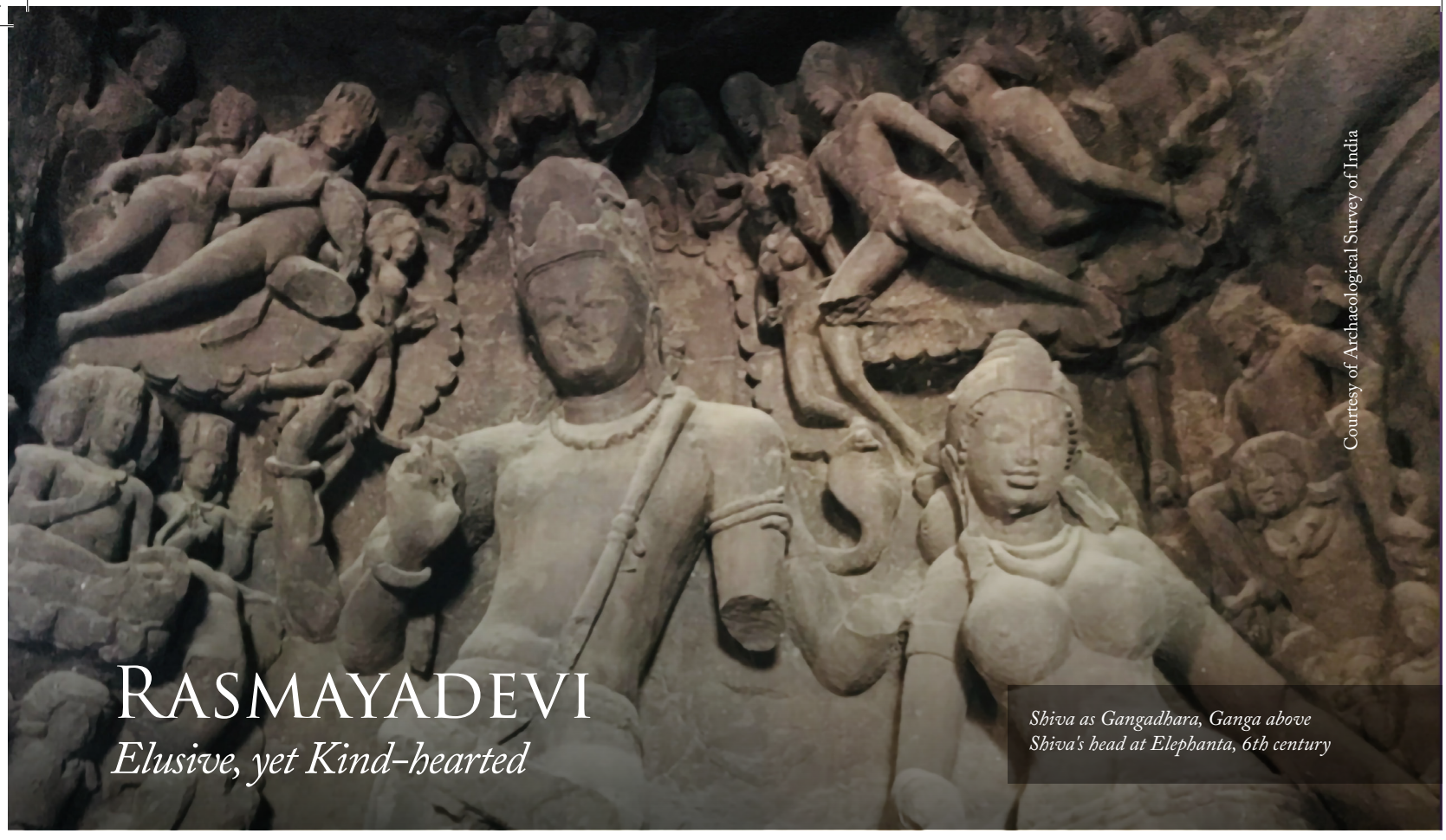
Parvati, to great delight of sculptors, artisans and poets who exploited this strained relationship to advantage. In an Ellora sculpture, Ganga is depicted as clinging to Shiva's hair, with a frowning Parvati growing faint and turning her face away in jealousy. The goddess, extrapolated and distanced from Shiva, sways away, yet leans towards the god. Though Uma and Shiva are inseparable, the presence of a powerful second female force, is bound to lead to some domestic discord.

And why wouldn't Parvati be jealous? With Ganga descanting from the top of the world mountain, she constantly dwells near Shiva. She would, at a later point, carry the foetus of Shiva's first born, Kartikeya, who was not born out of Parvati's womb. In the Skanda Purana, Shiva, speaking to Vishnu, resolves the issue by saying, "As Gauri (Parvati) is, so is Ganga".

The artisans of Gangaikondachlapuram played on this register to create the image of a jealous Uma, where emperor Rajendra took great pride in bringing Ganga water to his new capital in South India and gave great prominence to the form of Shiva as *Gangadhara*. In one of the sculptures, Parvati appears so vexed at the prospect of having Ganga as co-wife, that she turns her face away from Shiva. Shiva is seen as receiving the flowing Ganga in his matted locks in his upper right hand even as his lower hands are gently moving around Parvati, embracing her, as if trying to coax her into acceptance, in a gesture of *anunaya* or request.

*Brahma pouring Ganga water on Vishnu's feet, 12 th century, Hoysala*

Courtesy of Archaeological Survey of India



Courtesy of Archaeological Survey of India

# Rasmayadevi

## *Elusive, yet Kind-hearted*

*Shiva as Gangadhara, Ganga above Shiva's head at Elephanta, 6th century*

The meandering stream of Ganga is elusive in fact, to such an extent that it confounds even the celestials. They find it difficult to comprehend her physical form as her innate powers almost drown Shiva. The stream of the Ganga, according to Sivaramamurti (1976), with her waves, create doubts in the minds of the celestials as to whether they are lily garlands, digits of the moon, the sprouts of dead merit, the sloughs of snakes or ashes falling from Shiva's body.

For all her elusiveness, the river is kind-hearted and empathises with all. Ratnakara, an eminent poet of the 19th century, is convinced that the tender-hearted stream cannot be indifferent, even to the most erring. In his depiction of the annihilation of Kamadev by Shiva, he expounds that it was Ganga that helped extinguish the flame of Shiva's third eye, also granting release and rejuvenation for the mythical cupid.

The great epic, Mahabharata, talks in a little-known episode of how the *rasa* of Ganga's *shringaram*, her love and attractiveness, played a part in the story of Pratipa, the father of Shantanu, who eventually married Ganga. The king Pratipa was a wise and benevolent ruler and was loved by all. He spent many years in ascetic penance on the banks of the Ganga. One fine day, Ganga, assuming the form of a beautiful woman rose from

***"For all her elusiveness, the river is kind-hearted and empathises with all"***

the waters and sat on Pratipa's right thigh.

Upon being disturbed from his penance, Pratipa asked her what she desired, to which Ganga replied that she had fallen for the handsome countenance of Pratipa and wanted to marry him. Pratipa responded to Ganga's proposal by gently refusing her offer and stating that while he appreciated her beauty, it was beyond him to agree to her offer. When Ganga asked to know why, he replied that he had taken a vow of abstinence and that he would be committing a sin by breaking it. He further went on to state that she had chosen his right thigh, reserved to seat only daughters and daughters'-in-law. Only the left thigh was reserved for wives. Hearing this, Ganga replied that if not him, it would be her honour to be wife to his son as marrying someone from the Bharata clan was significant to her. She also stated that after becoming his daughter-in-law, her actions could not be judged for propriety by her son and that he would attain heaven because of the grandsons that she would bear him. Thus, the attraction that Ganga held for Pratipa was one of the reasons that she would go on to marry Shantanu, an episode most popular versions of the Mahabharata begin with.

*River Goddess Ganga, Deopara, 12 th century*

*River Goddess Ganga with Shiva and attendants, Rajasthan, 800 CE*

Courtesy: Archaeological Survey of India

# NAGAPUTRIKA

## *Into the Netherworld too!*

*Depiction of Nagas in a street corner in South India*

In many parts of India, the *Nagas*, or serpents, are associated with water, lakes, oceans, rivers, and the netherworld. Certain *Nagas* are especially associated with the Ganga. In the Harivamsa, authored by Kalidasa, there is mention of these serpents residing in the Ganga.

As the Mahabharata tells us, Ulupi, the *Naga* princess rose from the Ganga, her home, at the sight of Arjuna who stood on the riverbank and, infatuated as she was with his appearance, she pulled him down into the water to induce him to marry her.

At Mahabalipuram, in the large group of rock carvings known as Arjuna's penance, *Nagas* and *Naginis* are shown with hands clasped in adoration against the central cleft which suggests the stream of Ganga on the banks of which Arjuna performed his penance. These *Nagas* here, as Sivaramamurti (ibid.) tells us, do not represent the netherworld. They, in fact, represent Ganga as the abode of snakes. It was the *Nagas* of the Ganga that added prodigiously to Bhima's strength. Mahabharata narratives tell us that in a garden by the Ganga, Duryodhana invited his cousins for sport, and as slumber overpowered them all by the close of the day, Bhima was bound hand-and-foot at Duryodhana's instance and thrown into the river, where, by chance he reached the land of the *Nagas*. When this came to the notice of Vasuki, the lord of the netherworld, he welcomed Bhima and gave him a draught of ambrosia that multiplied his strength beyond all measure. Thus, one can conclude that Nagaloka is always imagined to be under the Ganga, the depth of the river being unfathomable.

When Buddha travelled from Rajgriha to Shravasti, having had to cross the Ganga on the way, he allowed

all, including the king of Magadha to cross by boat while he himself, along with his trusted pupil Ananda, crossed the river on a bridge formed by hoods of serpents, the *Nagas*, who had come forward to help The Enlightened One in some way or the other.

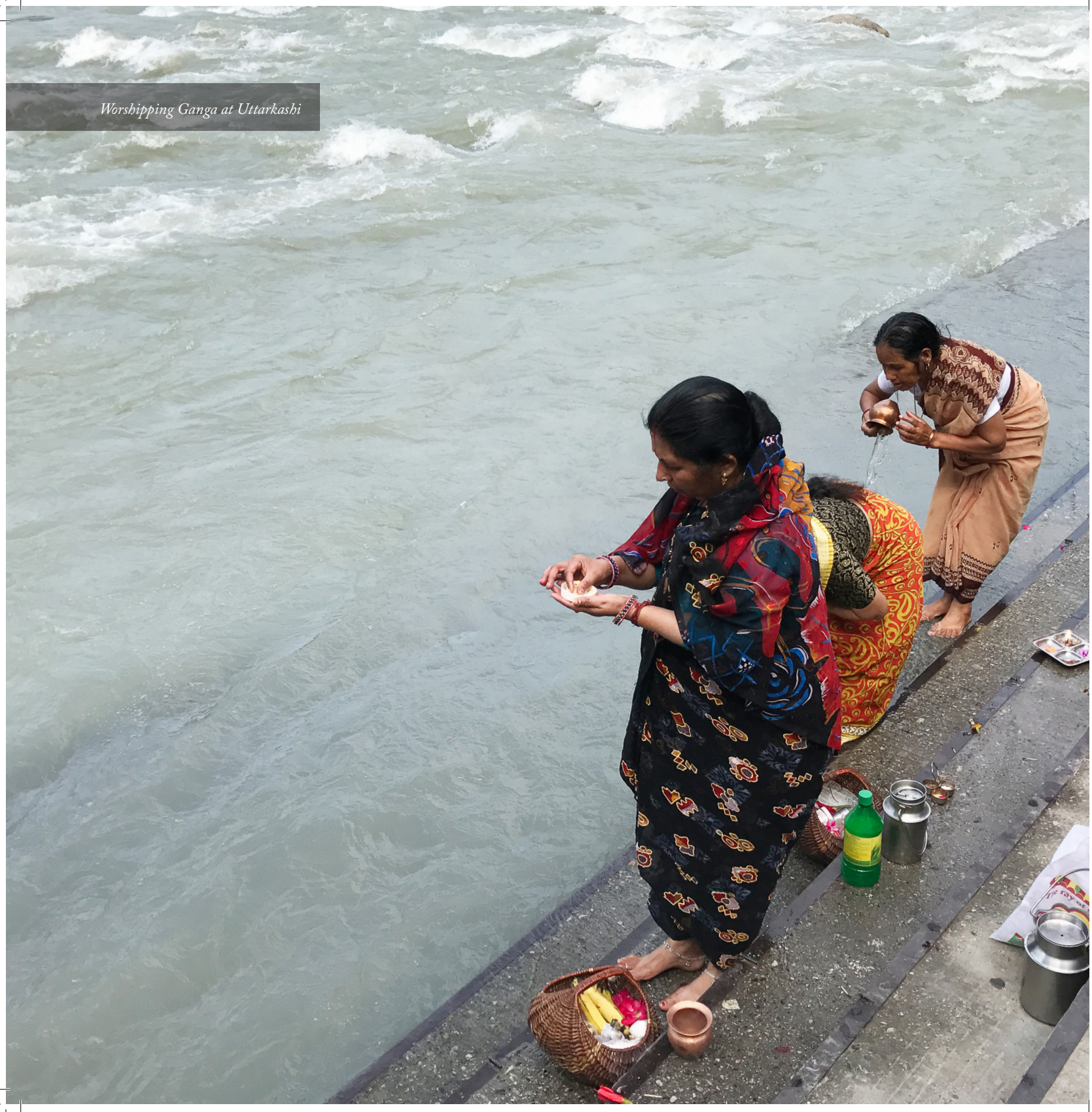
*Nagas* are considered guardians of treasures. The text, Mahavastu, clearly delineates the association of Nagas, Ganga and the treasures also referred to as the Nidhis. Among the nine well known treasures, *Padma* and *Sunkha* are very prominent. Like *Padma* with Mithila, *Sunkha* is associated with Banaras, both places on the banks of the Ganga. In the city of Banaras, there is an ancient well called Nagakuan, dedicated to Nagaraja Ananta or Seshanaga, where, on the Naga Panchami Day, a festival is celebrated. At Daraganj near Prayag at Allahabad, a temple of Vasuki, overlooking the Ganga, is situated. Across the length of the river, shrines where people worship serpents can be seen.

*Snakes and serpants are a significant part of iconography near the Ganga.*

Ganga
Katha

CHAPTER II

# Ganga: *From* Water *of* Life *to* Goddess



*Worshipping Ganga at Uttarkashi*

It was destined that Bhagirath would be the first to receive and worship Ganga on earth. Humankind had been waiting through five thousand dark years of the *Kaliyuga*, and Bhagirath, a mere mortal, the dutiful descendent, went through great physical pain and spiritual anguish to rescue the condemned souls of his ancestors. In the process, he gave humankind a way to wash away the debris of their sinful deeds. Bhagirath's superhuman effort in bringing Ganga to earth was born out of his strong intent to help humanity. No effort can fructify unless this intent, a promise made to oneself, the *sankalpa*, is not unselfish and resolute. In every household, a rite or ritual commences with a *sankalpa*. The one performing the worship holds water in the palm with a few droplets of Ganga water added to it and offers it to the elements and the nine planets, the *navagrahas*. In such a rite, Ganga lives on in every heart and home across the world.

Ganga, the river, truly embodies the essence of Indian culture. It is an essential element of a believer's every rite of passage. According to the Bhagwat Purana, Ganga is a river so blessed, not only does she splash around in Shiva's matted locks and in Brahma's pot, but she also dwells at Vishnu's eternal lotus feet. At one point, Krishna embraced the beautiful river on his left flank, alienating his own consort, Radha. Shiva had to contend with Parvati's wrath for adorning his head with the river's palpable and perpetual presence. The Skanda Purana insists that the waters of the Ganga are nothing but the essence of Shiva's potency, created and let loose for all fallen creatures crying out for redemption. Ganga, as a living embodiment of the essence of Shiva, and its association with so many deities from the pantheon has acquired special meaning and symbolism in the evolution of Indian art and iconography.

> ***"No effort can fructify unless this intent, a promise made to oneself, the sankalpa, is not right and strong"***

The *Sanatana Dharma* is not a monolithic religion dictated by a canon. It is more a way of life, a roadmap that helps one lead a righteous life, open to interpretation and individual practice. It is, in fact, a combination of different religious, cultural, and philosophical practices that find their roots and growth in different parts of the Indian subcontinent. No other faith employs its icons and symbols in a more effective manner than Hinduism. While most of its icons are invariably suffused with multiple spiritual meanings, mere objects and monoliths are also representative of deities, goddesses, philosophies, teachings, and cultural traditions. Among all sub-

*Sankalpa with Ganga waters*

faiths within the Hindu fold, owing to the millions of icons that dot the landscape, devotees have the freedom to worship their deity of choice, with every deity controlling a specific force in nature that governs a person's path of spiritual progress. For a devotee to achieve all-round spiritual perfection, one needs to gain favour with deities who stir one's own consciousness and help develop similar attributes as the deity. As we shall see in this chapter, the river Ganga has also emerged as a deity in her own right with an ever-evolving iconography.

A myriad beliefs, histories, traditions, arts, and cultures emanate from Ganga – as a spiritual river – and as a Goddess. From classical art objects in museum collections to the vernacular folk and popular creative traditions in contemporary settings, the river finds expression in so many forms. The unbroken continuity of Ganga's veneration and her role in the making of the region's diverse and rich cultural geography is fathomless. From exquisite stone sculptures from the Gupta period to finely crafted straw and clay idols from Bengal; from detailed miniature paintings in manuscripts and Mughal portfolios to the brushstroke flourishes of Kalighat and *pat* paintings; from vernacular votive offerings to finely crafted utility items created in the *karkhanas* along its banks; from photographs to literary works to cinema, the river has become a metaphor for so many emotions. Decorative iconographic architectural fragments and details, stonework, metalcraft, woodcarving, clay and ceramic, manuscripts and textiles, the materials employed to depict the river are incredibly diverse.

*The Ganga Temple at Gangotri*

> ***"The unbroken continuity of Ganga's veneration and her role in the making of the region's diverse and rich cultural geography is unfathomable"***

Varied expressions of the Ganga focus on three main themes – Heaven (*swarg*), Earth (*prithvi*), and the Netherworld (*pataal*) – the three worlds of Indian cosmology in which the flow of the Ganga is celebrated. The first theme explores the cosmic realm of *swarg* or heaven where Ganga comes into being and flows as a celestial river. Ganga is celebrated as the heavenly nymph; the favourite of the Gods; the water of Brahma flowing around Mt. Meru; an offspring of Vishnu; at times a consort too; and the wife and consort of Shiva.

The second theme, *prithvi,*

*A Sadhu making his way to Gaumukh*

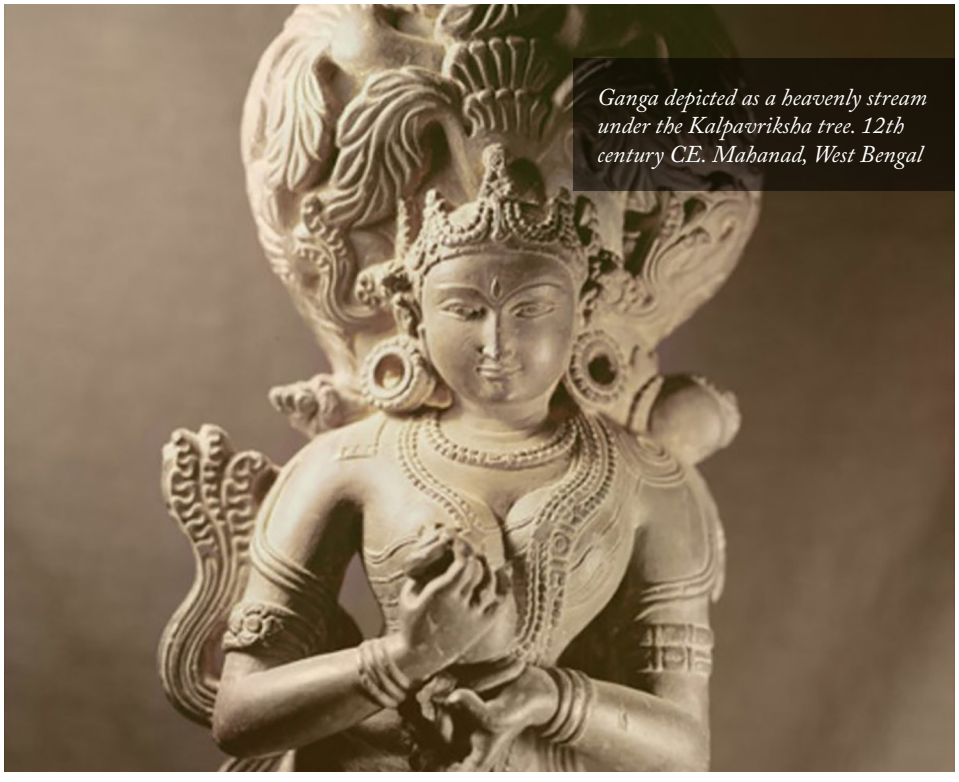
begins with her descent to earth as the goddess of purity. It depicts Ganga as the benefactor of life on earth and as one that confers *moksha*, the final liberation from the unending cycle of birth, death, and rebirth.

The concept of *pataal* or the netherworld focuses on Ganga descending to earth as a reward for the sincere penance of the descendant of King Sagar, Bhagirath, undertaken to release the souls of his 60,000 ancestors from *pataal*, where they had been burnt to ashes by the angry gaze of Sage Kapila.

# Iconography

Ganga has multiple images with many symbols ascribed to her. One may have seen her image but do you know what the *abhaya mudra* translates to in a stone figure? Or that the *makara* changes from sculpture to sculpture, having no one representation? Or that goddess Ganga is usually paired with Yamuna when portrayed in temple doorways? These are all questions of iconography that scholars spend their lives uncovering.

Broadly speaking, iconography refers to the science of identification, description, classification, and interpretation of symbols, themes, and subject matter in the visual arts and culture. The term can also refer to the artiste's use of this imagery in a particular work. Iconography distinguishes itself from symbolism through the nuance that while symbolism is merely a representation of a concept through symbols or underlying meanings of objects or qualities, iconography is a set of specified traditional symbolic forms associated with the subject or theme of a stylized genre of art. The term iconography comes from the Greek word *ikon* meaning image. The term icon has come to be attached to any object or image that is outstanding



*Ganga depicted as a heavenly stream under the Kalpavriksha tree. 12th century CE. Mahanad, West Bengal*

or has a special meaning attached to it. Iconography is a particular range or system of types of images used by artistes to convey meanings. For example, in Christian religious painting there is an iconography of images such as the lamb which represents Christ, or the dove which represents the Holy Spirit. In the iconography of the classical myth, however, the presence of a dove would depict a woman or also the goddesses Aphrodite or Venus. This implies that the meanings of images can depend on context and values ascribed to the image.

Found most often at the base of door frames, the stone figurines of Ganga from early history, have some interesting features. She is usually depicted at the bottom of the frame of a sculpted stone door frame and very often Yamuna is depicted parallel to her. There is a trick to distinguishing the two: you have to look for their *vahanas*. *Vahanas* are the vehicles upon which the goddesses travel. Both have different ones; the *makara* or crocodile-like creature for Ganga and the *kurma* or tortoise for Yamuna.

The *makara* can be found in various styles; some more floral, from a Ganga sculpture from Ellora; others with clearly marked scales like the *makara* from the temple in Raipur. The designs change depending on region, time period and artistic medium.

Besides the *vahanas*, Ganga can be identified through other features that are often associated with her and all stem from her stories and myths. She is usually depicted with four arms, each of which holds a different item that is significant to her. Some of these artefacts are an urn or *kalash* of *amrita*, rosary, lotus, *Shiva lingam* and hands in *varada mudra*. This particular combination of features show up in the depiction of Ganga in the *Maha Virat-rupa* which is essentially the form of a deity normally seen in the Bhagwad Gita that is an omnipresent and all-powerful version. In other depictions, she is seen holding a *kalash* or *ghata* and a lotus while two of her hands are in *varada* or *abhaya mudra*. Another depiction shows her holding a *kalash*, trident, *Shiva lingam*, and her hand in the *varada mudra*. In several of these depictions, she is also shown with attendants holding up a parasol or *chhatra*.

Later depictions, mostly seen in paintings originating from the Kalighat School in Bengal, show Ganga holding a *shankha, chakra*, lotus, and her hand in the *abhaya mudra*. The *kalash* is normally shown pointing down, releasing the waters of Ganga to sanctify the masses. This is all to say that there are a variety of combinations in which Ganga can be depicted based on the region, time period and art style. The significance of each of the symbols that Ganga is depicted with is given thus, so one can understand more clearly what the image is reflecting with a particular combination:

*Ganga on Makara,*
*Nand Lal Bose, 1950*

**Lotus:** The flower represents beauty, prosperity and fertility. It also represents spiritual awakening and enlightenment.

**Rosary:** Represents the cyclical nature of life.

***Shiva lingam:*** An emblem of generative power, of the power to use energy for the greater common good, rather than self-aggrandisement.

**Hand in *varada mudra*:** The *varada mudra* shows the right hand held out with all the fingers pointing downwards and with the palm facing outwards. This is the gesture that symbolizes the dispensing of a boon.

**Hand in *abhaya mudra*:** The *abhaya mudra* shows the right hand held upright, and the palm facing outwards. This is a gesture of reassurance and safety, dispelling fear, according divine protection and bliss.

***Kalash, ghata* or *Kumbha*:** A metal pot with a rounded larger body and a small mouth is a symbol of life and abundance known to contain *amrita* or the elixir of life.

***Chhatra*:** A parasol, that for Ganga is held up by attendants. It represents the attainment of divinity.

***Shankha*:** A conch shell that is used as a trumpet during rituals. As a symbol of water, it is associated with fertility and the *Nagas*. It is considered a giver of longevity and prosperity and a cleanser of sins in various scriptures.

A fact that needs no extrapolation is that Ganga has extraordinary religious importance in India, while also being one of the seven great rivers in the world. It is the only watercourse reputed as sacred by a billion worshippers, in India and much beyond its shores. Naturally, it would be revered as a goddess. For a civilization that places such a premium on idols and icons, would it not be pertinent to study the evolution of the Mother River, Ganga, as an icon? This part is an attempt to describe the evolution of the figures and symbols in the Indian tradition, in terms of the visual culture, especially sculpture and painting, that have defined the Ganga icon since ancient times. However, since the river has found so many depictions, one might also add a caveat that what are described here are only some of those representations that have significantly and incrementally advanced the image overtime and truly define the river's depiction.

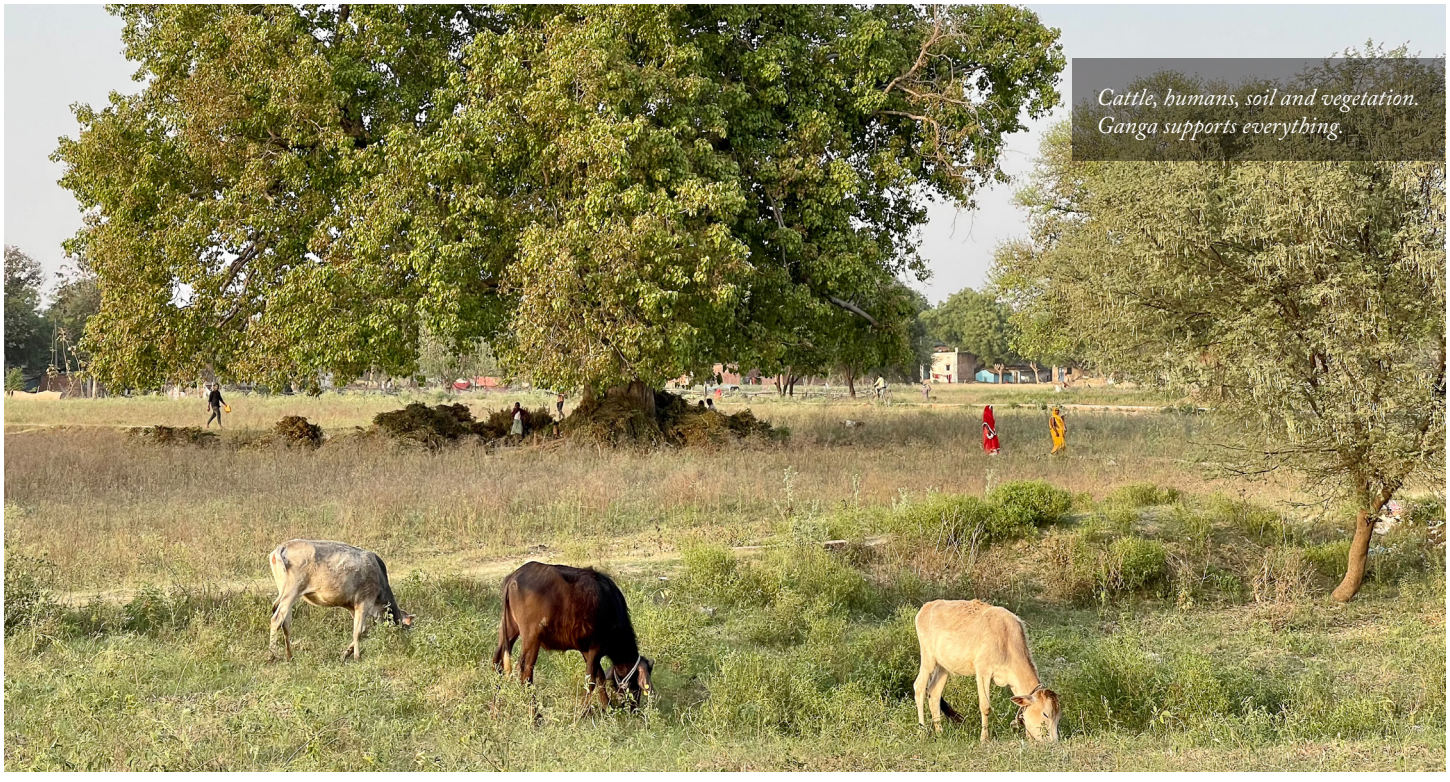
***"Shiva lingam: An emblem of the generative power, of the power to use energy for the greater common good, rather than self-aggrandisement"***

In the case of Ganga, a natural benediction that emerged as a goddess and a life force for an entire civilization, the iconography can be traced to the times when, overwhelmed by nature, man began to create images of its elements and expressed reverence to them. In the Indian context, this making of images was even more significant since life and agency was attributed to these images. They were inanimate, fashioned out of wood, metal, stone, or terracotta, and yet could bring communities together, like no other social institution could. This embodied quality of images is still visible amongst traditional Himalayan communities, whose deities are considered as possessing shakti or power. This power needs to travel amongst its subjects, and therefore the need to carry them on people's shoulders on precipitous paths, across daunting distances. Most devotees carry these deities in palanquins and treat them as super-human entities that can emancipate in terms of resolving a variety of social complexities. A study of the belief systems of the Himalayan communities by the author (Ohri, 2019) reveals that the deities, even though inanimate images, perform various functions like blessing new-born children, welcoming brides, exorcising spirits, causing rain, delivering justice by presiding over cases, and even inaugurating new temples built for them to reside in. The *devi-devta* system works through the ritual of procession and possession, where chosen men, oracles of the deities, act as a medium and the divine speaks through them. Since the *devi-devtas* possess all the attributes of political figureheads of the past, Sutherland (1998) has referred to this system as "government by deity." These images, therefore, emerge as non-human agents, that become the social flux that binds a community and can have an impact strong enough to ensure continuity as well as innovation in social life.

*Shrine of the three rivers at Ellora Caves. Ganga in the centre. 6-8th century, Rashtrakuta Dynasty.*

***"A murti is itself not a god, but it is a shape, embodiment, or manifestation of a deity"***

Therefore, in India, the most significant representation of a divinity is its depiction as a *murti*. The term *murti* literally refers to any form, embodiment, or solid object. It is a general term for an image, statue or idol of a deity or mortal, in Indian culture. In temples, it is a symbolic icon. A *murti* is itself not a



*Cattle, humans, soil and vegetation. Ganga supports everything.*

god, but it is a shape, embodiment, or manifestation of a deity. *Murtis* are also found in some non-theistic traditions, Buddhism, Jainism, Christianity, especially Jainism, where they serve as symbols of revered mortals inside Jain temples, and are worshiped in *murtipujaka* rituals.

A *murti*, also referred to as a *vigraha* or *pratima*, is typically fashioned by carving stone, woodworking, metal casting or through pottery. Ancient era texts describing their proper proportions, positions and gestures include the Puranas, Agamas and Samhitas. The expressions in a *murti* vary in diverse Hindu traditions, ranging from *ugra* symbolism to express destruction, fear, and violence (Durga, Kali), to *saumya* symbolism to express joy, knowledge, and harmony (Saraswati, Lakshmi). A *murti* is an embodiment of the divine, the ultimate reality or *brahman*. In religious contexts, they are found in temples or homes, where they may be treated as a beloved guest and serve as a participant in *puja* rituals. Such idols are referred to as *vigraha murti*. On other occasions, they serve as the centre of attention in annual festive processions, and these are called *utsava murti*.

Earliest *murtis* are mentioned by Panini in the 4th century BCE. Prior to that the *agnicayana*, or the ritual ground seemed to serve as a template for the temple. The most significant aspect here is the establishment or *sthapana*, where a *murti* is ritually established in a shrine once it is finally considered finished in all aspects. Once this is done, an elaborate ritual of *prana-pratishtha*, or infusing life into the idol is undertaken. This renders the *murti* an agentive force with a very palpable super-human presence as the presiding deity in a shrine or as the head of the household. This imbues the material object, already considered charged with divine power because of the symbolism, with

***"Davis argues that in some sense these believers, through ongoing interactions with humans, bring religious objects to life"***

infallible qualities in the eyes of the devout.

The earliest mention of the term *murti* occurs in primary Upanishads composed in the first millennium BCE, particularly in verse 3.2 of Aitareya Upanishad, verse 1.13 of Shvetashvatara Upanishad, verse 6.14 of Maitrayaniya Upanishad and verse 1.5 of Prashna Upanishad. For example, the Maitrayaniya Upanishad uses the term *murti* to mean a "form, a manifestation of time". The section sets out to prove time exists, acknowledges the difficulty in proving time exists by *pramana* (epistemology, in Indian philosophy), then inserts a theory of inductive inference for epistemological proof as follows:

*On account of subtleness of Time, this is the proof of its reality;*
*On account of it, Time is demonstrated. Because without proof, the assumption which is to be proven, is not admissible; But, that which is itself to be proved or demonstrated, when one comprehends it in its parts, becomes the ground of proof, through which it brings itself into consciousness (in the inductive way).*

*-Maitri Upanishad 6.14*

Ancient Indian texts assert the significance of *murti* in spiritual terms. The Vastusutra Upanishad, whose palm-leaf manuscripts were discovered in the 1970s in remote villages of Orissa, asserts that the doctrine of *murti* making is founded on the principles of origin and evolution of universe, is a "form of every form of cosmic creator" that empirically exists in nature, and it functions to inspire a devotee towards contemplating the ultimate supreme principle, the Brahman. This text, the composition date of which is unknown but probably dates from late 1st millennium CE, discusses the significance of images, as Alice Boner (2000) states, *"inspiring, elevating and purifying influence" on the viewer and "means of communicating a vision of supreme truth and for giving a taste of the infinite that lies beyond."*

It adds (abridged):

*From the contemplation of images grows delight, from delight faith, from faith steadfast devotion, through such devotion arises that higher understanding (paravidya) that is the royal road to moksha. Without the guidance of images, the mind of the devotee may go astray and form wrong imaginations. Images dispel false imaginations. It is in the mind of sages, who see and have the power of discerning the essence of all created things of manifested forms. They see their different characters, the divine and the demonic, the creative and the destructive forces, in their eternal interplay. It is this vision of rishis, of gigantic drama of cosmic powers in eternal conflict, from which the sthapakas (murti and temple artistes) drew the subject-matter for their work.*

*-Pippalada, Vastusutra Upanishad, Introduction by Alice Boner et al (2000)*

Images, therefore, are a part of how human beings learn and focus their thoughts, making icons a part of most spiritual endeavours. While *murtis* are an easily and commonly visible aspect of Hinduism, they are not necessary for offering of worship.

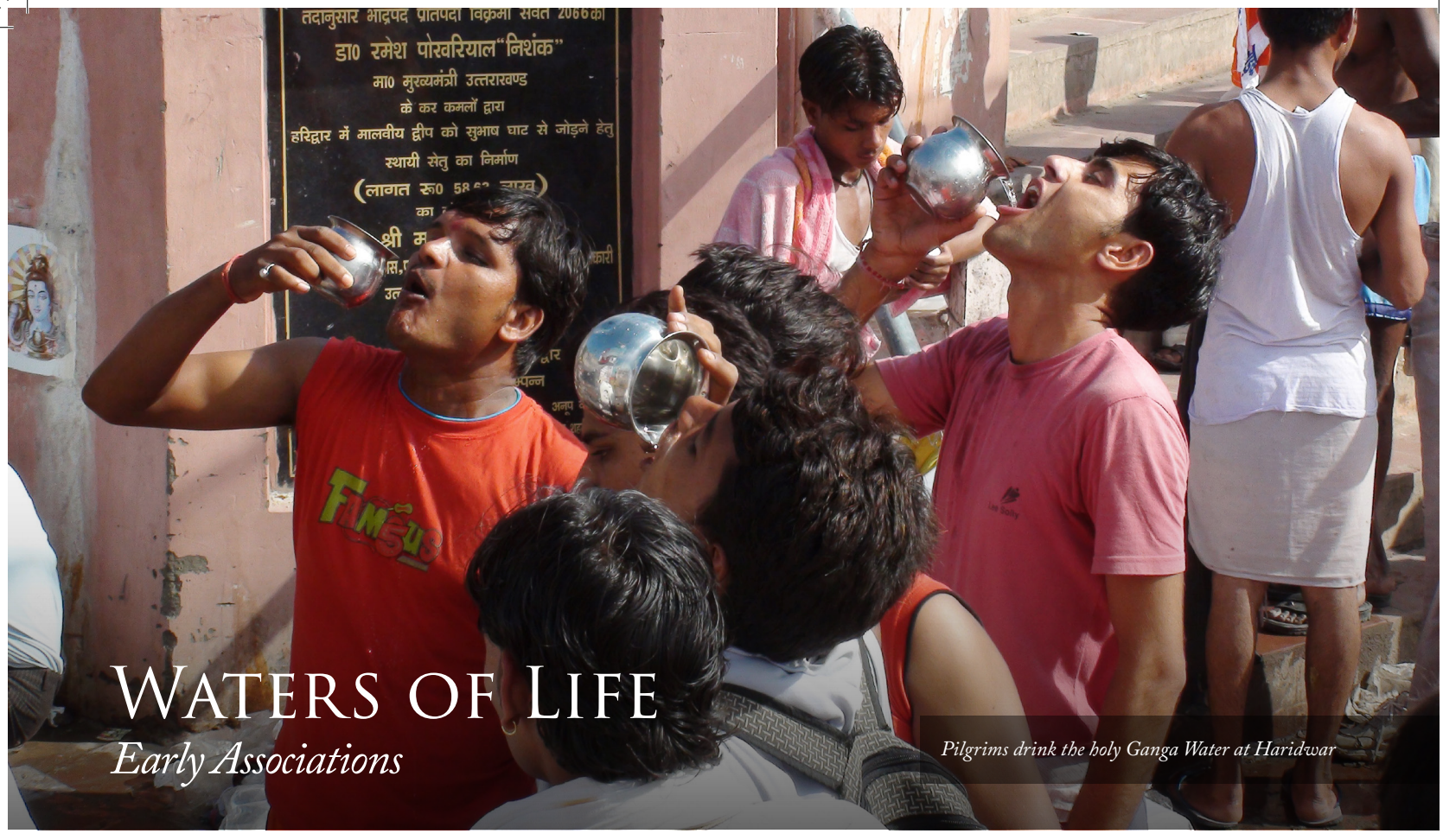
In his interesting analysis of images and their lives in the subcontinent, Davis (1999) claims that for many centuries, Hindus have taken it for granted that the religious images they place in temples and home shrines for purposes of worship are alive. Hindu priests bring them to life through a complex ritual "establishment" that invokes the god or goddess into material support. Priests and devotees then maintain the enlivened image as a divine person through ongoing liturgical activity: they must awaken it in the morning, bathe it, dress it, feed it, entertain it, praise it, and eventually put it to bed at night. In his linked series of case studies of Hindu

religious objects, Davis argues that in some sense these believers, through ongoing interactions with humans, bring religious objects to life.

Davis draws largely on reader-response literary theory and anthropological approaches to the study of objects in society to trace the biographies of Indian religious images over many centuries. He shows that Hindu priests and worshippers are not the only ones to enliven images. Bringing with them differing religious assumptions, political agendas, and economic motivations, others may animate the very same objects as icons of sovereignty, as polytheistic "idols", as "devils", as potentially lucrative commodities, as objects of sculptural art, or as symbols for a whole range of new meanings never foreseen by the image makers or original worshippers. Therefore, most images are open to interpretation and have a multiplicity of meanings attached to them.

Let us examine some of the ways in which Ganga *murti* has been represented in Indian art, has evolved over time, and analyze the generally accepted meaning that underlies these images.

*The images of Gods probably emerged from observation of nature in this manner. A starlit night sky at Chirbasa. Bhagirathi peaks Silhouetted.*




# Waters of Life

## *Early Associations*

*Pilgrims drink the holy Ganga Water at Haridwar*

Often considered evidence of humanity's first artistry, prehistoric rock art still captivates people's imagination all over the world. Associated with many different cultures, the meaning and purpose of most forms of prehistoric rock art remain shrouded in mystery. Even the most experienced archaeologists continue to ask basic questions about rock art. What does it depict? What does it mean? Who produced it? When was it produced? What function did it serve? What clearly emerges from man's early attempts at creativity, however, is a strong connect with nature and its elements.

Most simply put, rock art is artwork done on natural rock surfaces. This means it can be found on the sides or walls of caves, cliffs, sheer standing rocks, and boulders. Most of the rock art found in India is located on the sides of massive granite boulders. Rock art may also be referred to as rock carvings, rock engravings, rock drawings, and rock paintings. Most of these are pictographs or painted rock art.

Pictographs, painted artwork on stone surfaces, are often regarded as the most beautiful rock art. Like the other forms of rock art, pictographs are found worldwide and delve deep into the human past. The pigments used to make pictograph paints are ochres, charcoal, ground minerals, natural chalk, kaolinite clays, and even diatomaceous earth. Usually, these substances are mixed with liquids like water, eggs, and blood to make red, black, and white paints. Brushes, stamps, hands, and fingers were used to apply these paints to rock surfaces (Whitley, 2005). Some of these paintings may date to about 25,000 BCE!

Mathpal (1995) has documented Himalayan rock art extensively, and the best-preserved examples from the rock-shelters at Barechhina,

close to Almora town in the Kumaon Himalayas, are noted for the two pre-historic painted rock shelters, at Lakhudiyar, a name which literally means a hundred thousand caves, on the banks of the Suyal River. *Odiya*r are caves often used as shelters for shepherds. They are well marked and remembered through generations. The Lakhudiyar Cave has paintings of animals, humans and tectiforms done with fingers, in black, red, and white colours. The region is known to have early man pastoralist cultures of Central-Asian Cassites, that migrated here. A prominent and revered hill nearby, with rock engravings, is also named Kasar Devi, probably a derivation from the identity of the Cassite people.

Scenes depicted on the rock-shelter walls clearly indicate stick figures, groups of people, paying obeisance to the waters of life, that appear in angular waves. Trees figure prominently, as do some animals and symbols like the trident and the *swastika*. However, the wavy formations of water clearly establish a strong relationship with river waters. The location of the rock shelter on the banks of a river makes for a moving scene.

Even in later depictions, Ganga emerges as the holy water in Brahma's *kamandalu* or water vessel. This, according to Sivamurti (1976), is the purest concept of knowledge of ritual and philosophic thought. The *sruk* or the sacrificial ladle and the water vessel indicate that Brahma is the initiator of all Vedic ritual. In the Indian ritual systems, the *abhisheka* which precedes and concludes all ceremonies, especially Vedic sacrifices, mainly depends on *tirtha jala*, or the holy water from pilgrimage sites. Poured on the head as in *abhisheka*, Ganga water purifies the outer frame, the physical body. Through a sip from the cupped hand or *acamana*, she purifies the inner body. From the water vessel, she is poured at the feet of the worshipful one as a token of respect and welcome. This is in *padya*, which immediately follows *arghya*, where

*Rock art in the Himalayas. The wavy patterns at the bottom depict early man's imagination of a river*

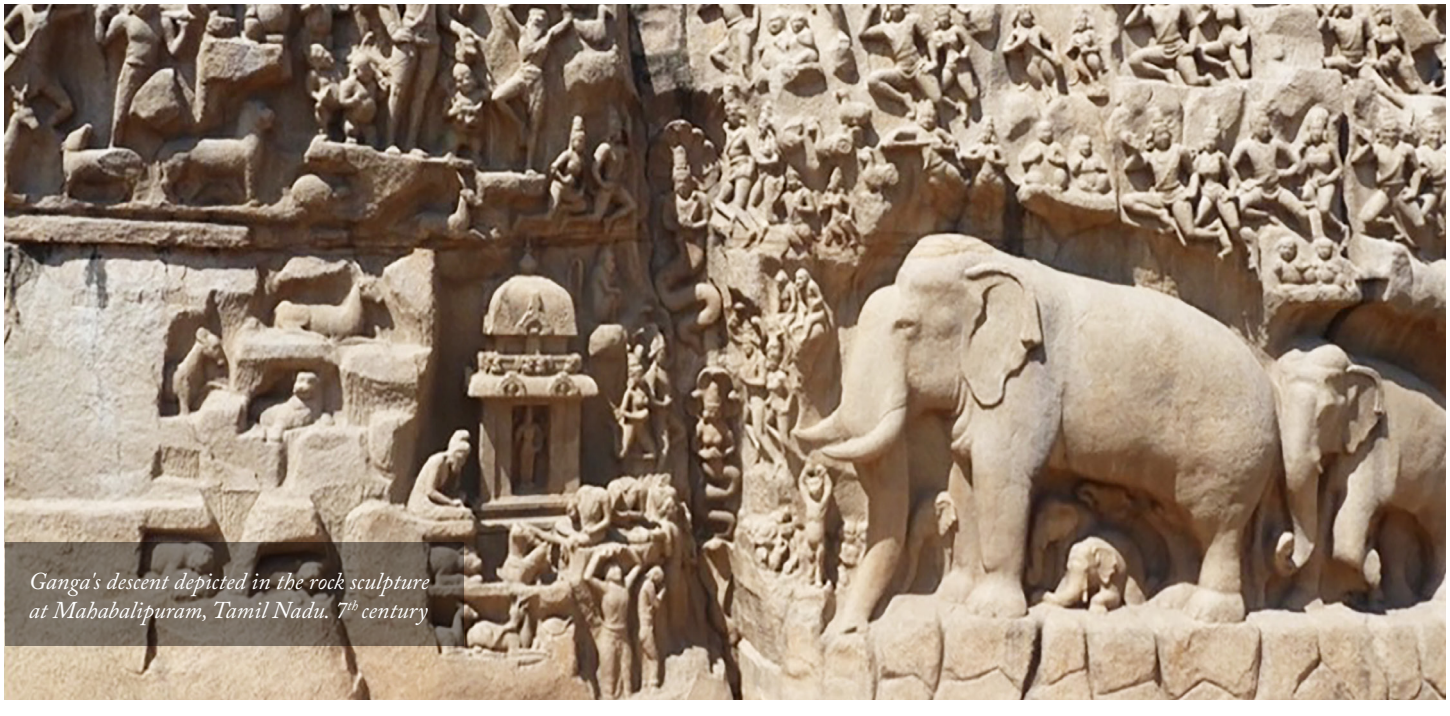
***"Serpents and Ganga are commonly found together in myths and visual culture"***

water is poured in the palms, as an act of cleansing.

In fact, during Chhath Puja, a popular festival in Mithila, the sun god Surya and the river emerge as the most significant. According to belief, Chhathi Maiya protects children from harm and gives them long lives and good health. Shashthi Devi has also been known as Manas, the daughter of Brahma. In the Puranas, she is also said to be the mother Katyayani, who is worshipped on Navratri on the Shashti date. Shashthi Devi is said to be Chhath Maiya in the local language of Bihar. According to legend, Chhath Puja stems from the early Vedic period, where sages would fast for days and perform the puja with mantras from Rigveda. Before sunrise on the last day of Chhath puja, the devotees must go to the riverbank, Ganga, if possible, to offer an *arghya* to the rising sun. After this, the protection of the child and the peace and happiness of the entire family is sought from Chhatti Maiya (Ranbay Mai). After worship, devotees drink water and eat *prasad* to break their fast. This is called *paran* or *parana*. Such festivals are a way of celebrating the life giving and regenerative qualities of the river.

As the Ganga Valley became the hotbed of Vedic culture, and the seat of empires, the river increasingly reflected human experiences with land, further leading to the evolution of modes of representation of river Ganga, evoking the river's connection with the netherworld, through serpent worship. Serpents, per se, were considered as containing the life-enhancing powers of the sacred waters. Serpents and Ganga are commonly found together in myths and visual culture. At times, Ganga herself acquires a serpent form.

According to Sivaramamurti (1969) in Darasuram, a twelfth century temple in South India, the lower half of the goddess is rendered in a series of wavy lines, indicating her watery or mermaid like quality. Much before this, in the 7th century CE, in the time of the South Indian Pallava Empire, *Gangavatarana* or the descent of the Ganga found its most dramatic



*Ganga's descent depicted in the rock sculpture at Mahabalipuram, Tamil Nadu. 7th century*

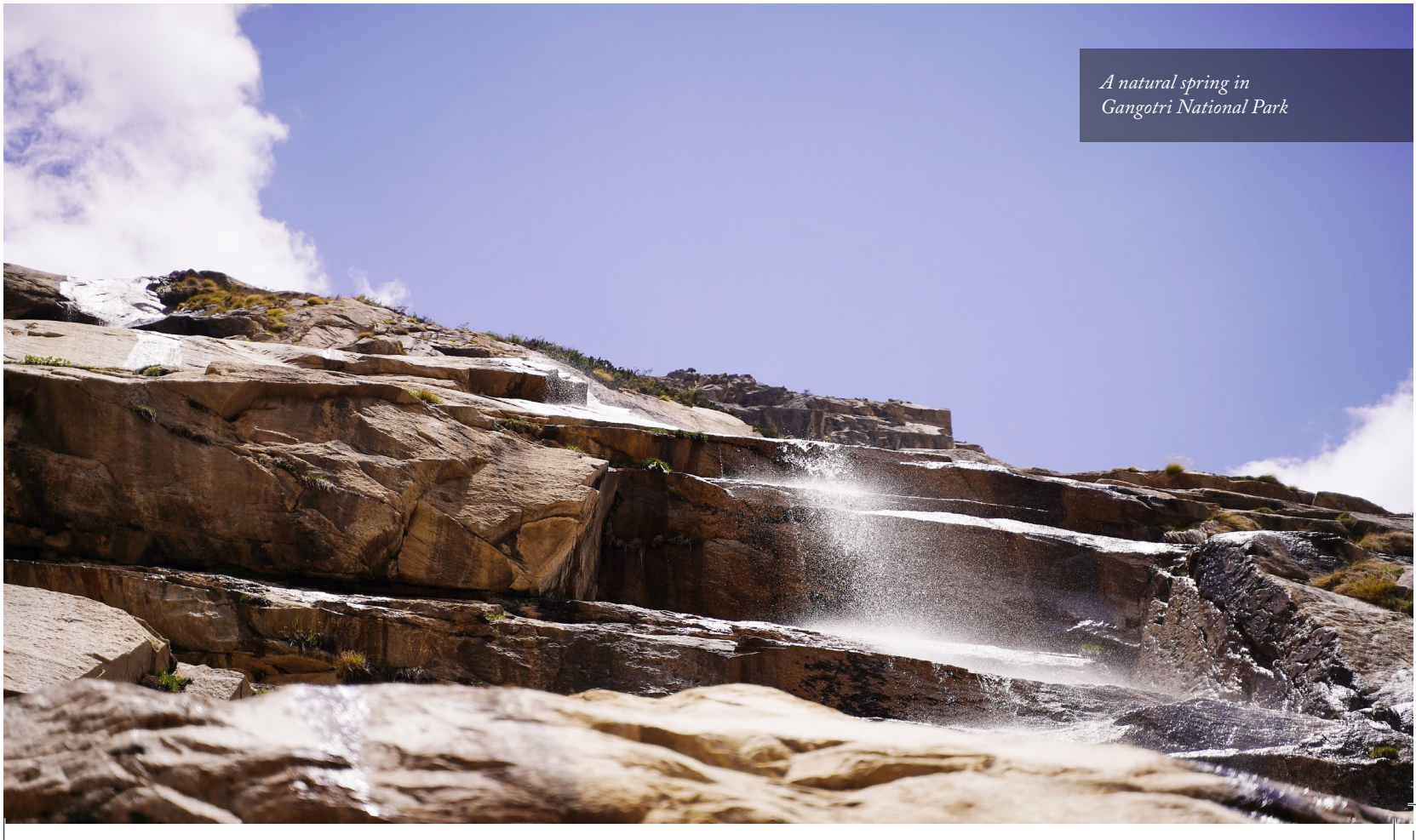
representation on long granite rock, in the most spectacular collection of secular and religious architecture known as Mamallapuram. The place was so named after Narasimhavarman, the king, who was a wrestler and warrior, a *mahamalla*. The colossal sculpture, rising ten feet, with granite cut from the east face of the rock, depicts water rushing from its source in the distant Himalayas. The scene pulses with life and seems inspired by the *Gangavatarana* description from the Ramayana:

*Devas, Rishis, Yakshas, and all the celestial beings…hastened there to witness the marvellous and auspicious descent of the Ganges to the world. And the Gods, as they alighted from the sky, irradiated that cloudless canopy of heaven with the splendour of their divine ornaments, so that it seemed a thousand suns had risen there.*

Ramayana, Bala Kanda. 43.

This dramatic description of the river's descent, thousands of kilometers away from the Ganga flood plains, clearly establishes the three forms of the river: as a celestial being descending from the heavens, as a benediction to humanity on earth, and as an entity revered by fearsome beings, the *nagas* (the serpents), from the netherworld.

In the central fissure at Mahabalipuram, where at one point in time, waters were channelized to represent the descent of the Ganga, the female *naga* rising from the waters also points to the river's ancient associations with the serpents and their powers.



*A natural spring in Gangotri National Park*

# Tree Goddess

## *Harbinger of Abundance*

*A Bhojpatra (Birch) tree at Chirbasa, on way to Gaumukh – Ancient Manuscripts were written on the bark of this tree*

Civilizations are known by their rivers. Nile, Tigris and Euphrates, Indus and the Ganga are examples. The Indus Valley civilization that flourished in India between 2300-1800 BCE carried further into the Ganga Valley. Indus Pottery blends found eastward along the lower reaches of the Narmada River indicate that Harappan cultures, moving in from Gujarat and Saurashtra, were brought into contact with the Ganga Valley by groups following the Chambal River north-east towards the Yamuna and by others along the Narmada into Southern Bihar. Excavations in early city states of the Ganga Valley, such as Hastinapur and Kaushambi, according to Sharma (1960), an archaeologist who worked extensively on these sites, have revealed many prototypes like the Harappan plans.

Seals from the period often depict interpenetrating forms. The tree, as a vegetal essence of life, figures prominently in the image of the female deity that could very well be the venerated river. Objects of worship are usually depicted beneath or inside a tree, and later, beneath a parasol or another canopy. This association between the female deity, reflecting veneration for the river, and the tree, dates to Harappan times and is a recurring element in Indus seals, that portray a female figure in the branches of a tree.

In the Indian river valley civilization, artefacts like seals – the human, animal and vegetal fuse with each other – resonating a common rhythm. This depiction, perhaps, is an antecedent of the depiction of Ganga as Mother River. Through the depiction of the female figure enveloped in nature, she is no longer bound by restrictive human codes. This is the precursor of the representation of Ganga in the form of mythical be-

> *"Along with the goddess and the tree, water may also have assumed a sacred character, especially in religious ritual"*

ings such as *yakshis* and *gandharvas*, creatures part human, part immortal, straddling the liminal spaces between human existence and godhood.

Along with the goddess and the tree, water may also have assumed a sacred character, especially in religious ritual. This can be inferred from the Great Bath, located prominently on the citadel at Mohen-jo-Daro. This 39 by 23-feet pool of water, with several other smaller facilities, clearly indicates, as Mackay (1948) points out, "…ceremonial bathing becoming a part of religious observations". The unmistakable relationship between water as needed for ritual bathing, goddess, and the tree as numinous objects, exists in several cultures that have placed prime value on the one giving birth and the one granting fertility.

*Banyan Tree by Ganga at Rishikesh*

# YAKSHI
## *Signifying Fertility*

*Terracotta figurine depicting Tamluk Yakshi in a standing posture*

The Mauryans were the first distinctly Indian empire, whose kings, in the 3rd century BCE concerned themselves with grand architecture. Buddhist art of the Shunga period from about 185 BCE borrowed heavily from the Mauryas, especially in the building of the Buddhist stupas. These structures, cylindrical in shape, were constructed over relics of the Buddha and were at once a commemoration and a reminder of the great teacher. Years after they were built, decorative railings were added, giving a wealth of information about the mythological world and primordial beliefs of the people.

Of the three great stupas, Bharhut, Amravati and Sanchi, the one at Sanchi has survived intact on site, while parts of the other stupas can be found in museum galleries across the globe. Images of the *yakshas* appear here as silent guardians. In Indian culture, *yakshas* offer a prototype for the larger image of the river goddess, Ganga, as a source of fertility and birth. Ganga's identification with *yakshas*, and their association with trees, who were themselves imagined as sources of life, led to further development of the Ganga iconography.

*Yakshas* were worshipped as keepers of the *soma*, the ambrosia that was splashed at the time of the great churning of the oceans between the gods and the demons. They often appeared with a vase or the *kumbha* in their left hand. In course of time, the *Bharhut yakshi*, standing on the *makara*, appeared as the defining icon for Ganga on her mount. Of course, in the beginning there was some hesitation, owing to the Buddha's rejection of idolatry, in the depiction of the Buddha, or Ganga as a human figure. Buddha was often denoted by a tree, and Ganga was commemorated only through inscribed dedications. In addi-

*"Gupta temple sculpture from the fifth century onward routinely featured the motif of the two rivers, Ganga, and Yamuna"*

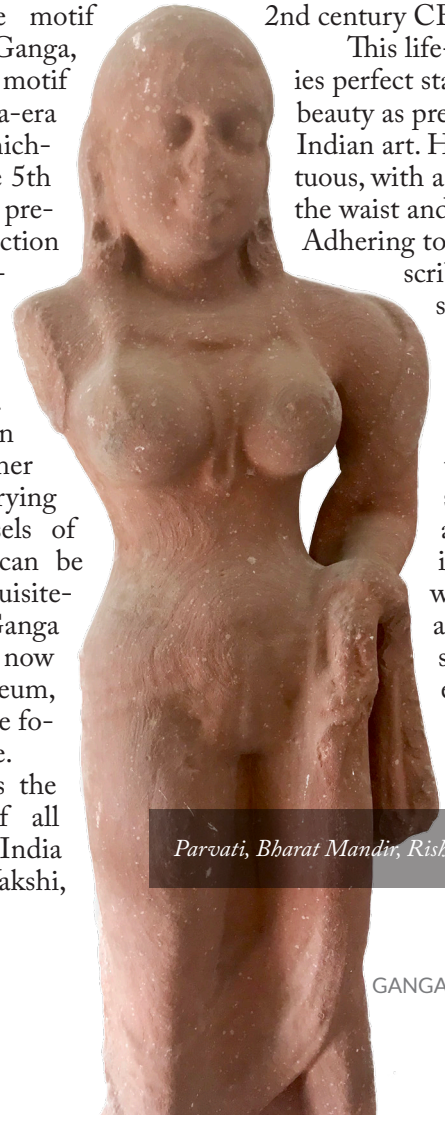
tion to the *yaksha* named Sudarshana, who appears with Ganga's emblems of the tree and the *makara*, at Bharhut, the name Gangita is ascribed to another *yaksha* figure.

Carrying on from the Indus Valley, in the stupas, the river and veneration for it reappears in the form of disembodied forces. The most well-known and celebrated of the *yakshis* at Sanchi is the Salabhanjika. Most hold that Salabhanjika emerged from ancient tree deities in Indian popular religion, related to the idea of fertility, which is the benediction of, among others, the sacred waters of the Ganga. The Salabhanjika concept stems from ancient symbolism linking a chaste maiden with the Sal (*Shorea robusta*) tree or the Asoka (*Saraca asoca*) tree through the ritual called *dohada*, or the fertilization of plants through contact with a young woman. The symbolism changed over the course of time and the Salabhanjika became figures used as ornamental carvings, usually located in the area where worshippers engage in circumambulation, near the entrance to the garbha griha of shrines. In fact, the term *garbha griha*, or the temple as a womb, signifying the sanctum sanctorum of a shrine borrows from the fertility concept. Placed at an angle, Salabhanjika figures also were used in temple architecture as bracket-figures. Salabhanjika is also related to the position of Maya, when she gave birth to Gautama Buddha under an Asoka tree in a garden in Lumbini, while grasping its branch.

Gupta temple sculpture from the fifth century onward routinely featured the motif of the two rivers, Ganga, and Yamuna. The motif is found in a Gupta-era brick temple in Ahichchatra, from the late 5th century CE, now preserved in the collection of the National Museum, New Delhi, and is a perfect examples of their fully realized forms. The figures are shown wearing a gossamer upper garment, carrying life sustaining vessels of water. This image can be compared to the exquisitely crafted image of Ganga found in Besnagar, now in the Boston Museum, standing under dense foliage of a mango tree.

But perhaps the most celebrated of all *Yakshi* figures in India is the Didarganj Yakshi, found on the banks of the Ganga, in the hamlet of Didarganj Kadam Rasual in Patna. It is said that washermen along the Ganga used the pedestal of this venerated sculpture, that exhibits the rare technique of polishing Chunar sandstone, as a slab to do their laundry until one day a snake slithered close to it. When the space was dug up to find the snake, there appeared the sculpture representing the pinnacle of Indian art, the Didarganj Yakshi, the finest example of Mauryan art, dated by scholars from between 1st century BCE and 2nd century CE.

This life-sized statue embodies perfect standards of feminine beauty as prescribed in ancient Indian art. Her figure is voluptuous, with a full bust, slender at the waist and wide at the hips. Adhering to the unusual, but prescribed norms of beauty, she displays the *griva trivali*, threefold lines on the skin of the neck and *katyavali*, the folds of flesh on the waist. The figure stoops slightly, seeking a posture of humility, that is also filled with amazing grace and beauty. In fact, the sculptor has succeeded in displaying that the figure must bend under the weight



*Parvati, Bharat Mandir, Rishikesh, 1 CE (Sandstone)*

of the fly whisk she carries. Her firm grip on the whisk also indicates the high standards of sculpture achieved in those times. The smile on the face is enigmatic.

Meanwhile, at the foothills of the Himalayas at Rishikesh, close to the Ganga at the Bharat Mandir, two sandstone sculptures depicting the art of Mathura have been found. One of them is the 1.5-meter-high male figure, perhaps one of the earliest representations of Shiva found in the region. The figure depicts Shiva on a pedestal, standing with his feet apart, one arm granting blessings, with the other holding a garment. Perhaps even more interesting, and little better preserved, is the upright female figure discovered near the Shiva image. Chanchani (ibid) describes it as Parvati (see p.65), holding a garment with one hand while the other was probably holding a *kamandalu*, the ascetic's begging bowl. The sculpture is comparable to the Didarganj Yakshi.

The Parvati Temple of Nachna Kathura, near Khajuraho, dating back to the second half of the fifth century CE also shows several *yakshas*, and attending to them, the two rivers. The theme, oft repeated in Gupta temples, travelled as far as Assam, as evident in the doorway that still stands among the ruins of the Dah Parvatiya Temple at Tezpur. Here the figures are shown with distinct nimbi, holding long flower garlands in their hands, with beautifully carved wild geese in full flight approaching them. Thus, placing the sculptures of the two rivers on the doorways of inner sanctums gained currency across the sub-continent.

As Stella Kramrisch (1946) points out, "visitors and devotees entering through these portals had to pass their threshold, almost mimicking a ritual initiation for the privilege of viewing the deity within, which would be typically placed deep inside the nave." Rivers were placed at the gates of temples to guard against contaminating elements from the profane, external world outside.

*Didarganj Yakshi, 300-200 BCE, Patna, Bihar*

# Lingam, Nataraja, Gangadhara

## *Shiva Associations*

*Mount Shivling at Tapovan, South of Gaumukh*

The little mountain, rock or pillar was a spiritual object in the ancient world. Vedas frequently refer to the pillar or *stambha* as a cosmological principle and various gods are identified with the power of life and *tapas*, the heat of rigorous veneration infused in it. As the Arthashastra (Shamashastry, 1960) says, "Who out of many, tell me, is that *stambha* to whom the pathways lead…to whom the waters make their way with longing?"

Passages in the Vedas indicate the generative properties of the *stambha*. We read in a hymn to *Agni*, "He who knows the golden reed that stands in the sea, he, is the Lord of Life." The Sanskrit word *vetasa* signifies both reed and phallus. This correspondence between reed, the stam*bha* and the organ with the power of detached regenerative-ness, signifies Shiva. In fact, it is mentioned in several texts that Bhagirath worshipped Shiva in his *stambha* form. Like the tree, the pillar develops from a tree, charged with the powers of life. Due, perhaps, to its regenerative associations, the pillar evolved from burial marker to *stambha* to *lingam*, the main object of worship in temples.

Commonly found in all temples until today is the *Shiva lingam*. Usually scoffed at as the phallic symbol, the *lingam* indicates a primordial relationship between Shiva and Ganga. This is a depiction of Shiva as the lord of the mountains, and Ganga as the mother and child of the mighty Himalayas. Ganga emerges from this strong symbology as the liquid essence of life, while Shiva is the organ of detached generation. She is the doorway to the mystery of life while Shiva, himself, is the mystery. Shiva and Ganga are never far apart, in ritual or in any divine manifestation. Their conjunction reaches its fulfilment in temple

architecture by the 6th or 7th century CE.

Together, Ganga and Shiva illustrate a primordial relationship prefigured in the Vedas. Their relationship underlies the spiritual architecture of Hindu shrines as it evolves from its primitive antecedents. As the pillar evolved from the burial marker to *stambha* to a *lingam*, the relationship between *purusha* and *shakti* was cemented. The relationship between the *lingam* and Shiva, or what the archaeologists describe as Proto-Shiva, extends to the Indus Valley Civilization, where several remains, such as round stone caps at Harappa and the well-known seal of the polycephalic yogi, have led scholars to attribute primordial native origins to the lord of the *lingam*.

The *lingam* is a natural rock projection pointing skywards, a smooth oval stone collected from a riverbed, or a well-crafted cylindrical shaft, placed in a leaf shaped basin. The primal artisan, Vishwakarma, stood before a cylindrical shaft, intent on carving the perfect form of God, but he realized that the magnificence of divinity could not be contained in an icon, so he placed the shaft in a basin and declared this aniconic representation as the *lingam* – which literally means attribute of – that which has no attribute. Though the *lingam* may be a phallic symbol, none of the scores of devotees that flock to Shiva temples to make offerings, associate the *lingam* with any sexual connotations that tourism brochures, coffee table books and some academics smugly refer to.

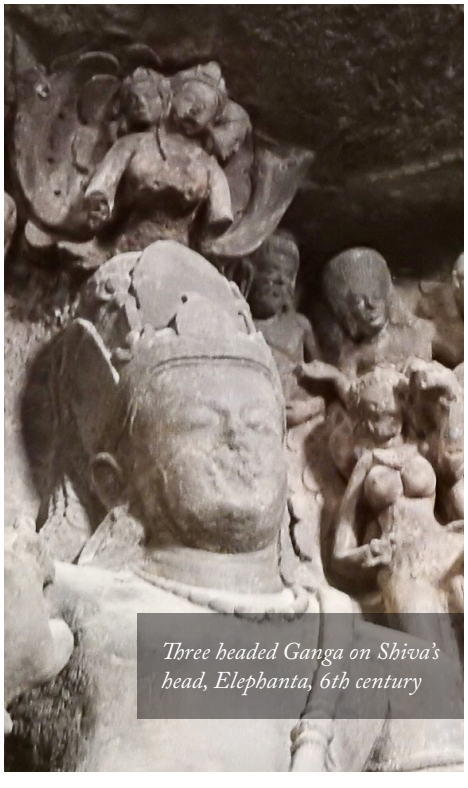
The *Shiva lingam* is *svayambhu* – an organ self-stirred and spontaneous, resulting from the realization of *sat*, the true nature of all things. This realization happens when *chitta* or consciousness has been purged of ego, memories, desires, and all forms of conditioning that delude the mind. What follows is *ananda* or tranquillity unconditioned by external influences. Thus, one enters a state of *satt-chitta-ananda*, the state when one is in

*Ganga and Shiva are always together*

touch with the Brahman.

In temples, a pot dripping water continuously from a hole is placed atop the *Shiva-lingam*. This represents Ganga, the water of the *samsara* that forces Shiva to release his *tapas* for the benefit and welfare of the world. The most common ritual in all Shiva temples is the pouring of water and milk over Shiva's *lingam* so that his energy moves outwards rather than moving inwards, benefitting everyone. *Tapa* thus transforms into life-sap, *rasa*, and sustains the world.

The temples that dot the Indian landscape are themselves as much a representation of the *agni* or fire aspect that represents the power of penance, as they are a representation of the *soma* aspect of water from the Ganga, represented in its eternal form. They also represent the co-existence of *purusha* and *prakriti*, culture and nature as complements and not dichotomies. As mentioned in the Rig Veda, "Water is female, and fire is male: life is born of their intercourse." it may be reiterated here that the Sanskrit name for the inner sanctum of a temple, *garbha-griha*, which literally translates into the house of the womb, establishes this primary meaning.



*Three headed Ganga on Shiva's head, Elephanta, 6th century*

The *Shiva lingam*, symbolizes various elements of the philosophy of detachment:

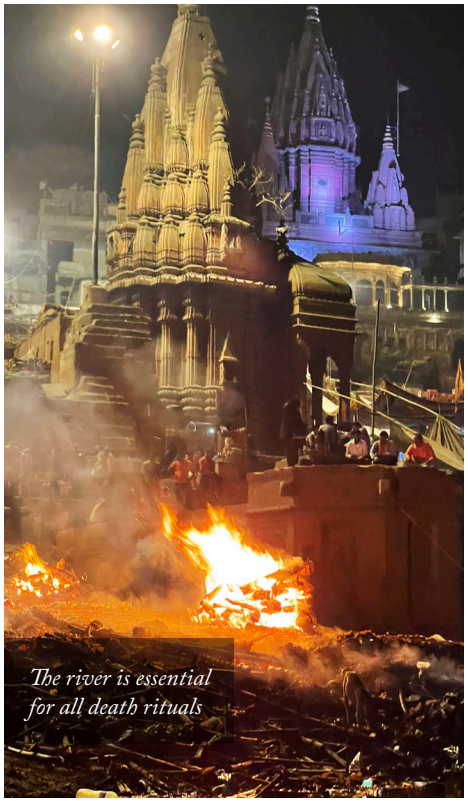
- The base or *yoni* represents the goddess, a serpent seated on it.
- The *lingam* itself is Shiva, lying prone and indifferent; of the world, but not for it.
- The drums or *damru*, represent *naad*, the ultimate sound of creation and destruction.
- The vessel dripping water on the *lingam*, represents change and movement, a constant effort to awaken the god within.
- The hooded serpent is indicative of the ego, which once mastered can be worn as an ornament of no significance and leads to a still mind.
- The Nandi bull, Shiva's vehicle and guardian, representing a true devotee, patiently awaiting at the portals, for the grace of God to fall upon him.

Just as Ganges finds its presence in our spiritual architecture, she also finds a place in our spiritualized physiology. The Hathapradipika, a yogic text from 14th to 16th centuries, explains the portals of spiritual ascension thus, "The goddess Ganga is *Ida* (referring to the *soma* qualities) the river Yamuna is the *Pingala* (of the *Agni* traits). Between them lies the *Kundalini* (the untapped source of spiritual energy resting at the base of the spinal cord)".

> ***'Together, Ganga and Shiva illustrate a primordial relationship prefigured in the Vedas"***

As Ganga begins to flow through the three realms, she matures and realizes her good fortune that Lord Shiva accepted her as a consort. In a remarkable Gupta period sculpture from Rajouna, Bihar, dating back 5th century CE, the river is shown approaching Shiva, riding the *Makara*, respectfully kneeling with her hands folded in supplication, with a parasol held over her head by a maid, as would befit a bride. Ganga is clearly depicted as a *nayika*, an anthropomorphic figure and not a mermaid anymore, approaching her lord. Shiva, is clearly overwhelmed by her humility, grants his acceptance by holding out a lock of his hair, depicting her abode.

Shiva is called *Uma-Ganga-Patiswara*, the husband and lord



*The river is essential for all death rituals*

of Parvati and well as Ganga, and depicted as such by several artistes. By agreeing to accept Ganga as a consort, Shiva, in true yogic lack of concern, brings in domestic discord with Parvati, to the great delight of artisans and poets who have exploited this strained relationship to great advantage. In an Ellora sculpture, Ganga is depicted as clinging to Shiva's hair, with a frowning Parvati growing faint and turning her face away in jealousy. The goddess, extrapolated and distanced from Shiva, sways away yet leans towards the god. Though Uma and Shiva are inseparable, the presence of a powerful second female force, is paramount in the narrative of *Shiva-Gangadhara*.

And why wouldn't Parvati be jealous? With Ganga descanting from the top of the world mountain, she constantly dwells on Shiva's head. She would, at a later point, carry the fetus of Shiva's first born, Kartikeya, who was not born out of Parvati's womb. In the Skanda Purana, Shiva, speaking to Vishnu, resolves the issue by saying, "As Gauri (Parvati) is, so is Ganga".

The artisans of Gangaikondacholapuram in South India also played on this register to create the image of a jealous Uma, where the emperor Rajendra took great pride in bringing Ganga water to his new capital and gave great prominence to the form of Shiva as *Gangadhara*. In one of the sculptures, Parvati appears so vexed at the prospect of having Ganga as co-wife, that she turns her face away from Shiva. Shiva is seen as receiving the flowing Ganga in his matted locks in his upper right hand even as his lower hands are gently moving around Parvati, embracing her, as if trying to coax her into acceptance, a gesture of *anunaya*.

Therefore, wherever there is Shiva, and he pervades the Indian psyche completely, there is Ganga too. The various manifestations of Shiva, including his presence in death, cannot be accomplished unless the river is present. Death near the river is propitious and as the lord of the burning grounds, Shiva must be close by. In the twenty third verse of Mahabharata, Shiva declares, "I do not see any spot that is more sacred than a crematorium…of all abodes, the crematorium pleases my heart the most." Stevenson (1920) mentions a diminutive Shiva temple in Kathiawar, built on a spot where a raja had been cremated. The shrine contained a lingam, and statues of Parvati and Ganga. Ganga's relationship with the Himalayas and Shiva evolves naturally, especially since the emergence of the *Shiva-lingam* as the embodiment of the magic mountain and the lord himself. The ritual of pouring water on the lingam also duplicates the river's descent from *Himvat* (Himalayas), and the semen (*amrita*) flowing from Mahadev's endless powers of regeneration.

As lord of the mountain, Shiva pervades the Indian landscape, with verticality and representative of spiritual attainment. All temples with their myriad *shikharas* emulate the Himalayan abode of Shiva. In fact, the side elevation of the Kailashnath Temple at Ellora, is often compared with the skyline at Mount Kailas. The mountains and rivers have undoubtedly exerted a strong influence on the Indian mind since Vedic times, and Ganga is the purest essence that flows into the plains and the deltas, in the form of nature's bounty. No wonder, Ganga has

***"As lord of the mountain, Shiva pervades the Indian landscape, with verticality as representative of spiritual attainment"***

*Ganga in Shiva's dreadlocks, Chola Bronze.*

emerged as the mother river for the masses of India, with the confluences becoming sacred spots.

Over time, the Shiva image has been immortalized as *Nataraja*, a depiction of the divine dancer. His dance is called *Tandava* or *Nadanta*, depending on the context of the dance. The posture and artwork are described in many Hindu texts such as the Anshumadbhed agama and Uttarakamika agama, the dance relief or idol featured in all major Hindu temples of Shaivism. The classical form of the depiction appears in stone reliefs, as at the Ellora and the Badami Caves, by around the 6th century. Around the 10th century, it emerged in Tamil Nadu in its mature and best-known expression in Chola Bronzes. The *Nataraja* reliefs have been identified in historic artwork from many parts of South Asia, in Southeast Asia such as in Bali, Cambodia, and in Central Asia.

The sculpture is symbolic of Shiva as the lord of dance and dramatic arts, with its style and proportions made according to Hindu texts on arts. It typically shows Shiva dancing in one of the Natya-Shastra poses, holding *agni* or fire in his left back hand, the front hand in *gajahasta* (elephant hand) or *dandahasta* (scepter holding hand) *mudra*, the front right hand with a wrapped snake that is in *abhaya* (un-afraid) *mudra* while pointing to a Sutra text, and the back hand holding a musical instrument, usually a bifocal membranophone or *damaru*. His body, fingers, ankles, neck, face, head, ear lobes and dress are shown decorated with symbolic items, which vary with historic period and region. He is typically surrounded by a ring of flames, standing on a lotus pedestal, lifting his left leg (or in rare cases, the right leg) and balancing or trampling upon a demon shown as a dwarf (Apasmara or Muyalaka) who symbolizes ignorance. The dynamism of the energetic dance is depicted with the flying hair which spread out in thin strands as a fan behind

his head. The details in the *Nataraja* artwork have been variously interpreted by Indian scholars since the 12th century for its symbolic meaning and theological essence.

The earliest known *Nataraja* artworks have been found at the archaeological site at Asanapat, a village in Odisha, which includes an inscription, and is dated to about the 6th century CE. The Asanapat inscription also mentions a Shiva temple in the Saivacaryas Kingdom. Literary evidence shows that the bronze representation of Shiva's a*nanda-tandava*, the dance of merriment, appeared first in the Pallava period between 7th century and mid 9th centuries CE. Stone reliefs depicting the classical form of *Nataraja* are found in numerous cave temples of India, such as the Ellora Caves, the Elephanta Caves (both in Maharashtra), and the Badami Caves (in Karnataka), by around the 6th century. Archaeological discoveries have yielded a red *Nataraja* sandstone statue, from 9th to 10th century from Ujjain, Madhya Pradesh, now kept in the Gwalior Archaeological Museum. Similarly, *Nataraja* artwork has been found in archaeological sites in the Himalayan region such as Kashmir, albeit with somewhat different dance pose and iconography, such as just two arms or with eight arms. In medieval era artworks and texts on dancing Shiva found in Nepal, Assam, and Bengal, he is sometimes shown as dancing on his *vahana* (animal vehicle) Nandi, the bull; further, he is regionally known as *Narteshvara*. *Nataraja* artworks have also been discovered in Gujarat, Kerala, and Andhra Pradesh.

Dance is a visual metaphor of Shaiva philosophy. Every gesture of dance is transitory, occupying space and time but only momentarily. In Shiva's hand is the inner fire of *tapa*. Around him is the outer fire of *samsara*, the world. He stands on his right leg and points to the upraised left leg. The left side, because of the beating heart represents the world, constantly changing. The right, by contrast, is still like the soul. Shiva tells the devotee not to be afraid of the ever-turbulent material world and to focus on the still soul.

The oldest free-standing stone sculptures of *Nataraja* were commissioned by the Chola queen Sembiyan Mahadevi. *Nataraja* gained special significance and became a symbol of royalty in Tamil Nadu. The dancing Shiva became a part of Chola era processions and religious festivals, a practice that continued thereafter. In a curious twist given to the traditional *Nataraja* sculptures of a dancing Shiva, a bronze sculpture shows Shiva's feet skywards, attempting to regulate the flow of the mighty Ganges.

In several immortal bronze sculptures of the Shiva *Nataraja*, Ganga rests in Shiva's dreadlocks, her figure below the waist, like a serpent, offering obeisance to the dance of creation. She emerges from his locks holding her hands in the *abhaya mudra*. She seems to be half-submerged in waves and is recognisable even without her *vahana* because we already know the story behind her presence in Shiva's locks.

*Shiva lingam fashioned by pilgrims with Bhagirathi peaks in the background*

# MAKARA
## *Creature Ambivalent*

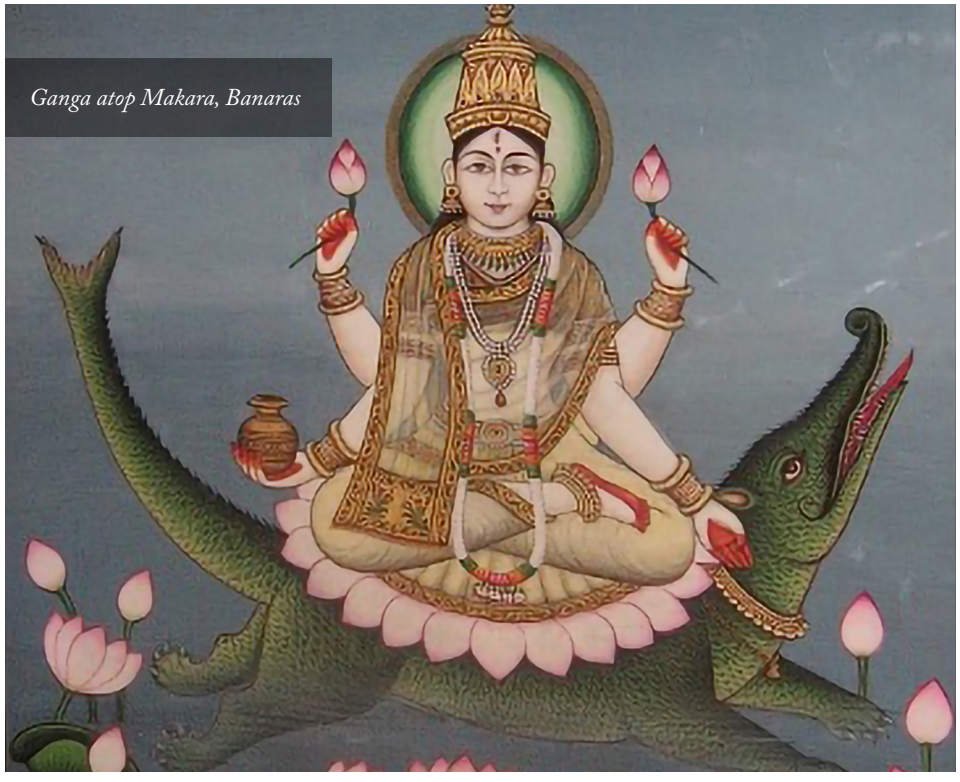
*Makara gargoyle, Pala period, 12th century CE, Munger, Bihar*

Perhaps the earliest carved Ganga image occurs atop a doorframe in Cave 6 at Udaigiri, Central India, near the ancient city of Vidisha in Madhya Pradesh. Dating back to about 402 CE, here, a colossal human form with the head of a boar lifts the earth, represented in the figure of a goddess, the *bhu-devi*. A phalanx of gods and goddesses are in attendance, while the great *naga*, the serpent of the netherworld waits in attendance as a supplicant. On an opposing façade, the goddesses Ganga and Yamuna are carved in feminine form standing on their respective mascots or vehicles, the *makara* and the tortoise. The donor for this cave was a feudatory of the Gupta monarch Chandragupta Vikramaditya.

In Indian art, the *makara* is an emblem of the waters. It serves as a pedestal for Ganga, and as her signature, distinguishes the mother river from other goddesses. As distinguished from a crocodile or an alligator, it is more like a water-dragon. The *makara* are considered guardians of gateways and thresholds, protecting throne rooms as well as entryways to temples; it is the most commonly recurring creature in Hindu and Buddhist temple iconography, and frequently appears as a gargoyle or as a spout attached to a natural spring. Traditionally, a *makara* is an aquatic mythical creature. *Makara* has been depicted typically as half mammal and half fish. Some traditional accounts identify it with a crocodile, specifically the Mugger because of its etymological roots. It is depicted with the forequarters of an elephant and the hindquarters as a fish tail. Such a depiction serves the purpose of identifying Ganga as a source of all existence and fertility. The *makara* is an ambivalent creature of the wa-

ters in both its life-enhancing and life-enveloping roles.

The meaning of the Sanskrit word Ganga is “the one who takes towards God”. In fact, according to Chandramouli and Bhattacharya (2015), the word Ganga is derived from the Sanskrit root *gama*, which means, to flow incessantly. According to Pande (2014), in some sub-cultures, *makara* is also believed to be the symbol of lust and attachment. When our lust for worldly passions is under control, we are set free and can pursue higher goals. That is why *makara* is said to be a carrier vehicle of Ganga, who has control over the free-flowing river, and the capacity to carry us from a state of lust to a spiritual state. *Makara*, therefore, is an aquatic monster understood variably as the alligator, crocodile, or Gangetic dolphin. It is the emblem of the god of love, Kamadeva. According to Molesworth (1975), as one of the signs of the zodiac, it corresponds to Capricorn. In several regional languages of India, words with similar roots are used. According to Kulkarni, for instance *nakra, magar* or *susar* are used to represent a crocodile, in Kannada a *negar*, and in Telugu, a *Negalu*. In Sanskrit, *nakra*, is a crocodile or an alligator, and *Nakraketana* is the name of the god of love.



*Ganga atop Makara, Banaras*

***The meaning of the Sanskrit word Ganga is "one that takes towards God"***

The lexicon Amarakosha says, that a *shishumara* refers to a child devourer, referring usually to the Gangetic porpoise or a dolphin or an alligator. The term n*akrastu kumbhirah* refers to *kumbhira*, a crocodile of the Ganges, the Ghariyal or the long-nosed alligator. The English word Mugger corresponds to a fresh-water crocodile. In Hindi, the word *magar-macha* or simply *magar,* is commonly used. The Ashtadhyayi of Panini (print 1988) mentions *nakra* as *na kramati*, a reference to something that is immobile, an allusion to the habit of the crocodile of staying still at one place without the slightest of movements.

In mythology, the original story is found in the Sara Kanda of the Ananda Ramayana. Makaradhvaja is the son of Hanuman. He was born to a crocodile that was residing in the ocean, a salt-water crocodile, of the drops of perspiration from Hanuman falling on her body (Vettam Mani, 1989). The same text has another story where a sage makes an immoral proposal to a heavenly damsel, the beautiful apsara named

Dhanyamali. She declines and the angry sage curses her to become a crocodile. Hanuman frees her spirit by killing the crocodile in whose body she is trapped, helping her regain her heavenly form. With the flag bearing idol of the Kamadeva, a *makara* is depicted on his flag and the face of the *Makara* is made up of five arrows. The notion of five arrows refers to five specific types of flowers – *Shveta kamala, Ashoka pushpa, Amra manjari, Nava mallika* and *Neela kamala*.

Artisans in India found gharial in the thousands basking along the banks of the Ganga and naturally appropriated it as Ganga's vehicle. Therefore, *makara's* elephant trunk does resemble a stylised gharial snout. *Kirtimukha*, usually at the top of the arch in temples, has a lion's snarling face with fearsome bulging eyes, tongue hanging out, bared teeth, and occasionally a pair of horns. As legend has it, when a vainglorious king had the temerity to lay claim on Shiva's beautiful wife, a terrible demon issued fully-formed from the wrathful god's third eye. The petrified messenger of the king fell at Siva's feet begging for mercy and the god forgave him. But, the ogre, that had been born of Shiva, complained that since he had been created, his raging hunger would have to be appeased only with demon flesh. Shiva smiled and retorted, "Well, there is still one demon that needs to be finished." When the ogre looked around quizzically, Shiva pointed at his own flesh.

On Shiva's orders, it ate its own body until only the head remained, similar in theme to the Ouroboros, the symbol of a snake swallowing its tail. Impressed by this obedient self-cannibalism, Shiva proclaimed that henceforth the demon-head would be known as *kirtimukha* and worshipped in all his temples. Joseph Campbell (1974), the eminent mythologist, opined that the story of *kirtimukha* reveals the fundamental truth: life lives off death. Every day we see versions of *kirtimukha* painted on construction sites, on ash gourds, on the backs of trucks and as masks for scarecrows to ward off the 'evil eye'.

Ganga's *makara*-riding reliefs on doorjambs had become an essential component of temple architecture from the fourth to the fifth century itself. This status of Ganga as the guardian deity has ever since remained unsurpassed. Temples built by all major dynasties, the great Guptas, early and late Western and Eastern Chalukyas, Gurjara-Pratihara, Pallava, Pala, Sena, Vakataka, Rashtrakuta, Pandya, Hoysala, Chola among others covering, besides India, also Nepal, Java, and Bangladesh, have on their doorjambs, statues of Ganga and Yamuna as

*In the Himalayas natural springs are usually given Makara heads*

# KUMBHA
## *Bestower of Plenty*

*Carrying a kumbha full of Ganga waters.*

After the *makara*, Ganga's most distinctive feature is the full vase, the *kumbha*, first appearing in the Ganga icons on the caves in Udaigiri. Although not common in the early stages of the Ganga image, the full vase appears more and more obligatory for the goddess in her role as the door guardian. This image is most pronounced in the Dasavatara Temple at Deogarh from the 7th century CE, the Trimurti Temple, Badoli, Chittor and at Kharod, Bilaspur (9th or 10th century CE), all in central India.

The *kumbha* expresses several values, mostly related to the generative and purifying powers of water. The full vessel, as an object of worship even today, represents the deity and may be understood as an expression of the formless Brahman. As the Upanishad states, "The face of god is hidden in a golden vessel."

The vase and water serve as both symbol and vehicle of initiation, promoting strength, youth, puissance, and immortality. Other than these, the most significant value of the *kumbha* is as woman, a womb, signifying birth. Both Ganga and Saraswati are born from Brahma's water jug.

A symbolic representation of the *kumbha* can also be seen in the fort of Gwalior in Madhya Pradesh. The fort at Gwalior has been in existence since the 10th century CE. It stands three hundred feet above the plains and is believed to have been built by King Suraj Sen of the Kacchhappa Dynasty, who was cured of leprosy by being directed to a pond by the Sage Gwalip, the waters of which seemed to contain magical powers like the Ganga. Gwalior is named after the sage. Inside the fort's courtyard one can see a *kumbha* on top of the first tier of each pillar, a commemoration to the waters as bestowers of plenty.

*"The vase and water serve as both symbol and vehicle of initiation, promoting strength, youth, puissance, and immortality"*

*Kumbha,* eponymous with the great fair, a gathering of several holy men on the banks of the Ganga every twelve years, has several other connotations. *Kumbha* corresponds to the Aquarius zodiac sign, and the capital sculpted as part of a pillar. The word *kumbh* means an urn, and one of the several myths is the story of an urn filled with the nectar of immortality which emerged from the primeval waters when they were being churned by gods and demons. The urn was snatched by demons but the son of the ruler of heaven, the god Indra, recovered it. Drops from the urn fell at the Allahabad Sangam Har-ki-Pairi in Haridwar, Ujjain and Nashik in India, where Kumbh Melas are held.

*Earthen pots fashioned from the soil that is also Ganga's bounty*

# Coins
## *Stamp of Authority*

*Coins recovered from the Ganga, on sale*

Early Gupta coins, fashioned from gold, were known in the Kushan Empire as *dinara*, which, according to Sen (2019), may have a link with the contemporary coins of Rome (denarii aurei). Coins served as dual emblems of piety and conquest, stamped, and issued with the view to proclaim the territorial reach and prowess of the Gupta suzerains, anticipating the circulation of their currency much beyond the borders of their kingdom.

Amongst the earliest known coins, are the tiger-slayer coins of Samudragupta, on which the emperor, brandishing bow, and arrow, is shown trampling a tiger. On the obverse we see an image of Ganga astride her vehicle, the snouted crocodile-like creature, at times resembling a dolphin, the *makara*. She holds a lotus with a long stem, in her left hand. Her right hand is empty and outstretched, reaching out toward a standard topped with a crescent, decorated with long flowing streamers.

Another coin from this series has Ganga feeding a peacock. On gold coins of the same period, depicting an imperial rhinoceros' hunt, again, we can see Ganga holding a lotus in her right hand, standing on a *makara* with an attendant holding a parasol over her head. While other coins also show images of Lakshmi and Durga, what these coins go to show is that by this time Ganga, as a female deity, had become an established figure, representing imperial sovereignty and fortune.

Currency in India has for long been carrying symbols like the lotus and the *Ashok Chakra*. A look at the current national symbols of India indicates the significance of Ganga to India. The national flag bears the

***"A look at the current national symbols of India indicates the significance of Ganga to India"***

*Ashoka Chakra* in the middle, while our national emblem is the Lion Capital of Ashoka at Sarnath, consisting of four Lions standing back-to-back on a circular abacus. The abacus has sculptures of an elephant, a horse, a bull and a lion. These are separated by wheels in between, called the *Dharma Chakras*. These have been adopted from ancient sculptures found on the Ganga banks. Our national animals include the Tiger, Gangetic Dolphin, Elephant, and the King Cobra. All four are found extensively in the forests along the river. Our national tree is the the Banyan. The Banyan tree represents eternal life, because of its ever-expanding branches. The country's unity is symbolised by the tree's huge structure and its deep roots. The tree is also known as *Kalpavriksha*, or the wish fulfilling tree. The tree grows extensively by the Ganga. Ganga herself is the national river of India.

A look at the state emblem of Uttar Pradesh also points to Ganga's significance. The symbol was adapted from the Nawabs of Oudh, who adopted fish as their leitmotif. The official symbol emerged when the Royal Society in the United Kingdom, approved it in 1916 as the emblem of the United Provinces under the British. The Coat of Arms adorning all Uttar Pradesh government files, letterheads, vehicles and other government stationery, including its publications using it as seal, has an underlining idea. The pair of fish and the bow-arrow, embellished with three waves signifies unity in diversity. The pair of fish is dentified with the erstwhile rulers of Oudh, followers of the Islamic faith, and great patrons of the arts. The fish symbolise the economic prosperity of the region as supported by the rivers Ganga and Gomti with their several benedictions. The bow and arrow identifies with the righteousness of Lord Ram, while the waves in the middle mark the confluence of the rivers Ganga and Yamuna.

*Ganga astride Makara in Samudragupta's coin.*

# Across the Continents

## *Maps to Fountains*

*Ganga Talao, Mauritius*

Courtesy: Wikimedia Commons

Classical accounts of India, both Greek and Roman, during the first two centuries of the Christian era, describe Ganga as the greatest and largest of all rivers. In the second century, Ptolemy the Greek geographer, drew a map of India showing the Ganga flowing southeast, from the mountains to the sea, and applied the term *India intra Gangem* and *India extra Gangem* to the regions west and east of Ganga respectively. This terminology was used by European geographers until the middle of the 18th century.

In the 11th century Pala sculptures from Sankarbandha, Bangladesh, one can see Shiva dancing on a bull. There is a peculiar twist to the representation of Ganga and Yamuna, not flanking Shiva as described by Kalidasa in Kumarasambhava, but of Ganga on one side on her *makara*, and Parvati herself on her lion, gently swaying the *camara* for their lord. This alludes to Shiva, like Vishnu and Brahma having two consorts.

In Cambodian iconography, Ganga emerges as a happy co-wife with Uma. The two come together in the Mebon pillar inscription of Rajendravarman from 952 CE. Another inscribed pillar, of Indravarman from Bakong, not only narrates how a sculpture of Shiva as the Lord of Uma and Ganga, *Uma-Gangapatiswara*, was established but also how lovingly and with mutual faith Ganga and Uma embrace Shiva from either side. A clear mention of Shiva with two consorts, Parvati, and Ganga, is found in a Cambodian inscription, and there is also a mention of the sculpture of Shiva with both his consorts flanking him made in gold by a Cambodian king.

*"India and Thailand also share a common religious, cultural, and linguistic heritage"*

Tirta Gangga is a former royal palace in Eastern Bali, Indonesia, about 5 km from Karangasem, near Abang. Built in 1946 by the late King of Karangsem, it was destroyed almost entirely by the eruption of the nearby volcano, Mount Agung, in 1963. Tirta Gangga was established on the belief in Balinese Hinduism, where river Ganga and its waters are considered sacred. Its waters are cherished for irrigation and agricultural abundance, recreation, and economic activity. Patirthan Temple illustrates the historic significance of Tirta Gangga in the Balinese tradition, as a pilgrimage site to find the holy waters.

India and Thailand also share a common religious, cultural, and linguistic heritage. One facet of this sharing involves the festivals celebrated in Thailand. The most important Thai festivals are Loy Krathong and Songkran. Both festivals are linked to Indian festivals and therefore, Ganga. Thai people celebrate Loy Krathong on the full moon in November and pay respect to the river by floating Banana leaf cups and asking for forgiveness from the River Goddess Ganga. River Ganga apparently has no connect with Thailand, situated as it is thousands of kilometres away, but it still is respected by the Thais, especially on this day corresponding to the Indian festival of *Kartik Purnima* which gets its name from the month of *Kartik* (November-December). On this day people bathe in sacred rivers in the belief that Gods descend to earth and reside in the holy rivers that flow naturally leading to healthy growth and spiritual grace. The Thai New Year, Songkran, falls on the 13th, 14th of April every year. Songkran derives from the Sanskrit *Sankranti*, a festival celebrated in other parts of Asia. It reflects the typical ways of life of the people involved in agriculture in India, as well as Thailand. Both festivals are celebrated in India and Thailand with slightly different but share a strong connect to the waters of Ganga.

Fontana dei Quattro Fiumi or the Fountain of the Four Rivers is a fountain in the Piazza Navona in Rome, Italy. It was designed in 1651 by Gian Lorenzo Bernini for Pope Innocent X, whose family palace, the Palazzo Pamphili, faced

*Celebrating the festival of lamps in honour of Ganga, Thailand*

Courtesy of Wikimedia Commons

*"Water flows and splashes from a jagged and pierced mountainous disorder of travertine marble"*

onto the piazza as did the church of Saint' Agnese in Agone of which Innocent was the sponsor. The base of the fountain is a basin from the centre of which travertine rocks rise to support four river gods and above them, a copy of an Egyptian obelisk surmounted with the Pamphili family emblem of a dove with an olive twig. Collectively, they represent four major rivers of the four continents through which papal authority had spread: the Nile representing Africa, the Danube representing Europe, the Ganga representing Asia, and the Río de la Plata representing the Americas.

Public fountains in Rome served multiple purposes: first, they were highly needed sources of water for neighbourhoods in the centuries prior to home plumbing. Second, they were monuments to the papal patrons. Each fountain has animals and plants that further carry forth identification, and each carries a certain number of allegories and metaphors attached with it.

Each representation is a river god, semi-prostrate, in awe of the central tower, epitomized by the slender Egyptian obelisk, symbolizing Papal power surmounted by the Pamphili symbol of the dove. In addition, the fountain is a theatre in the public square, a spectacle of action, that can be strolled around. Water flows and splashes from a jagged and pierced mountainous disorder of travertine marble. The Ganges, in this sculpture is a bearded male figure, carrying a long oar, representing the river's navigability. The standard iconography of the *kumbha*, the vase of plenitude matches the European conception of India as represented by palm trees in the background of the representation of the river god. Only, the river is now gendered, a male, a god with a flowing beard, with water channels emanating from his body.

In the mid-1800s in southeast England, a little boy was being beaten by his mother for drinking the last of the water in their house during a drought. Thousands of miles away in India, the story was narrated by Edward Anderson Reade, acting Gover-

*Ganga depiction in the Fountain of Four Rivers, Rome. 1651 CE*

Courtesy of Wikimedia Commons

nor General of the United Provinces, to the Maharajah of Banaras at the latter's palace, over dinner. Moved by the story from the Chiltern Hills, the Maharaja agreed to fund the sinking of a well in the village of Stoke Row. The well is lovingly preserved by the residents, still recognisable today by the golden elephant that adorns it. The covered water source, known as the Maharajah's Well, was the first of several in the region. All were funded by benefactors from India, inspired by the Maharajah of Banaras' example.

Visitors to the Chiltern hills can still see the well's 23 feet superstructure topped by a bright dome. Not content with a simple well, the maharajah also funded the winding machinery and a decorative golden elephant that still stands sentinel. When in 1961, the then Maharaja of Banaras mentioned the forthcoming centenary of the well to Queen Elizabeth on her visit to India, it was decided to celebrate it. Nearly 1,500 people attended the celebrations in Stoke Row on 8th April 1964, with Prince Philip among them. And guess what they poured into the well to mark the Maharaja's gift. It was sacred water from the Ganga!

*Tirta Gangga, Indonesia*

Courtesy of Wikimedia Commons

# Spoils of War

## *From Icon to Tribute*

*Gangaikondacholapuram, Tamil Nadu*

With the advent of empire building, also arrived the art of temple building. Many temples were built from the spoils of war, dedicated as memorials for successful campaigns. This convergence of holy and temporal aspirations was exploited by the Cholas of present day Tanjore in Tamil Nadu. In the twenty-ninth regnal year, the Chola Emperor Rajaraja I held a consecration of the newly built Rajarajeshwara Temple in Tanjore. David Shulman (1985) suggests that there was always a measure of uncertainty about the king's absolutism, which is why temples were a "rhapsody to size."

The Cholas had always wanted to bless their kingdom with the sacred waters of the Ganga. At the consecration, the accomplishment of the extraordinary feat of the building of the temple, the Tiruvalagadu Plates tell us, King Rajendra "seemed to be laughing at Bhagirath who had brought down the Ganga by the power of austerities", especially since the consecration coincided with their kingdom reaching the banks of the Ganga in Mithila.

The Chola army had been directed to collect the waters of the Ganga and the defeated chieftains of the kingdoms bordering on the holy river were made to carry the Ganga waters all the way to the south, to the banks of the Godavari, where the emperor, was encamped. This forcible appropriation of the Ganga waters by the Cholas was by all accounts, according to Sen (ibid.), an extraordinary act. The water was brought for the ceremonial tank of the king's temple in the new capital named after the northern expedition, Gangaikondacholapuram, the city of the captor of the Ganga in latter day Trichurapalli. The pond was

*"The Cholas had always wanted to bless their kingdom with the sacred waters of the Ganga"*

decorated by a pillar of victory named *Gangajalamayam Jayastambham*. Connected to the temple tank was a man-made lake fed by rivers Vennar and Kolidam, proclaimed as the new Ganges of the Cholas. The act was further sanctified by the migration of devout Shaiva Brahmins from the cities along the Ganga, who were resettled by the emperor in the ancient Tamil city of Kanchi.

*Shiva coaxes a jealous Parvati, Early Chola 92 CE*

# Daughter of Kailas

## *Sacred Geographies*

*Ganga emerges in the heavens*

In some ancient writings – Hindu, Buddhist, Chinese, Tibetan – Mount Kailas is purported to be the home of Ganga, the river flowing from its slopes dividing into four streams, providing succor to the earth. The supposed source of the Ganga here is Lake Mansarovar, at the foot of Mount Kailas, a place of pilgrimage for Hindus and Buddhists, of Tibet, India, and Japan. In the figurative geography of the Puranas, a text from the first centuries of our era, Asia is depicted as a four-sided lotus, each petal containing the regions: China to the east, Persia to the west, India to the south, Turkestan, and its obscure realms to the north. In Egyptian religious art, the lotus is used as a symbol for remote mountains in the upper Nile, which concealed the source of a river. Mansarovar, the lake of the mind, is seen as the source of four rivers flowing into each of these directions, watering the land. Within India, the four great rivers – Ganga, Yamuna, Indus, and Brahmaputra – were all understood to rise in Lake Mansarovar, since it was not known until the early 19th century that the lake lay slightly to their north. However, despite the easy availability of satellite imagery in the present world, to many devotees, the sacred mountain and the lake at its foot evoke strong associations with the holy river.

A depiction of the descent of Ganga, found in the Neelakantheshwar Temple at Nirmaljhar, in the Ganjam District of Odisha, reveals this aspect of the Ganga image. The place derives its name from two words, *nirmala* meaning pure and *jhara* meaning stream. The sacred spring of Nirmaljhar originates from the foot of Marua

*"The Gangavatarana theme connects the river with the gods of the trinity"*

Hill, a part of the Badaghati Mountains of the Eastern Ghats. The temple was consecrated in 1676 by Raja Aparajita Sri Balukeswar Mardaraj of the Mardaraj Dynasty of Khallikore. Neelkantheshwar is the main deity of the temple. Other deities are Bimala, Radhakrishna, Jagannath and Surya, the Sun god.

The temple receives a constant flow of water, which is channeled into a large tank through the mouth of a stone crocodile, the *makara*. From here, the stream divides – one part is the Yamuna, leading to an unadorned basin called Prayag, and the other, Ganga, to a tank named Mansarovar, which contains in miniature the extant story of Ganga's descent from heaven. A small stone pool, less than eight feet square, contains an elaborate filigreed niche sheltering the god Vishnu seated in a cross-legged yogic posture, the *ardha-padmasana*. The image bears special emblems like the conch shell, the fiery wheel, the club, and the lotus or *padma*.

A stream of water issues from an opening beneath his left foot which extends over a narrow channel. From here the water is carried to a smaller shrine containing five contorted faces whose disheveled hair marks the image as Shiva. Water flowing over the matted locks continues along the channel, flowing under the bearded figure of the sage Jahnu, another irascible sage, who swallowed Ganga as she flowed past his hermitage overturning his pots and pans and disturbing his meditations. Eventually, the sage acceded to Bhagiratha's plea and released the river. After passing beneath the statue of Jahnu, the tiny stream turns a corner and enters a decorated semi-circular stone that represents Mount Meru. At its base are three jets of water – Ganga, Yamuna, and Saraswati – that enter the pool of Mansarovar. Atop the stone, a tree houses several small figures, probably the yakshas.

The *Gangavatarana* theme connects the river with the gods of the trinity. According to ancient texts, Ganga originated in the heavens, her home was the Milky Way. The site itself is described by the Vishnu Purana, an encomium to Vishnu, as the space between the Seven Sages, the *saptarishi* represented by Ursa Major, the Great Bear, and Dhruva or the

*Bhagirath prays to Ganga to descend to earth. Idols at the ghats in Lakshman Jhula, Rishikesh*

Pole Star, the third region of the sky, the splendid celestial path of Vishnu. From this region flows the stream whose benediction showers grace on all it touches. The Seven Sages, unmoving, perform austerities within its waters.

It is said that whenever the world is overwhelmed by evil, Vishnu incarnates to rid the earth of evil. One such incarnation is *Trivikrama*, lord of the three strides. According to Darian (ibid.) Shiva's role in the descent of the Ganga to the earth, reveals not just the one aspect of their primordial relationship: he as lord, she as mother and child of the mountain, but also other facets such as he as the organ of generation, the *lingam*, she as the liquid essence of life; he as the mystery, she as the door to the mystery; he as the tomb, she as the waters of life. They are never apart and occur together both in ritual and in several of Shiva's manifestations. This conjunction reaches its final fulfilment in the development of temple architecture by 6th or 7th century CE.

*The landscape at Gaumukh*

Ganga
Katha

CHAPTER III

# Incredible Intangible Heritage

*Ganga Arti at Banara –. A soothing spectacle*

*There is no happiness for him who does not travel, Rohita!*
*This we have heard. Living in the society of men, the best man becomes a sinner…*
*Therefore, wander!*

*The feet of the wanderer are like the flower, his soul is growing and reaping the fruit;*
*and all his sins are destroyed by his fatigues in wandering.*
*Therefore, wander!*

*The fortunes of him who is sitting, sits.; it rises when he rises;*
*it sleeps when he sleeps; it moves when he moves.*
*Therefore, wander!*

With these words, God Indra, the protector of travellers, urged a young man named Rohita to embark on a pilgrimage. These words, mentioned in the Aitareya Brahmana, an ancient text and similar exhortations have inspired people in the vast hinterlands of India to undertake tough journeys of self-realization. Most of these journeys are to the banks of the river of emancipation, Ganga. It is surprising that people who have so little, will invest their life's savings in undertaking this journey of piety.

According to Lannoy (2011), to be pious in India is to retain a little of the child's waywardness, to be a bit of a free spirit, a lover of the fantastic, grateful, and the lowly. Observing pilgrims in Banaras, he believes that the trustful lowliness of these pilgrims is their real resource. To prove his point, he mentions the simple ritual act of shaving of the head and the ritual bath in the Ganga. This act, he believes, bridges the gap between the learned pandits on the banks and lowly, illiterate pilgrim. In the waters of the Ganga, all distinctions dissolve. The simple ritual, like a bath in the river, according to him, evokes a sense of being:

*…like a baby, born again, shorn of status, the shorn pilgrim symbolically possesses natural blessedness…all comes to rest in one very simple common feeling: the certitude of being at home in one's soul.*

This feeling of being at home in one's soul is perhaps the defining feeling that brings seekers to the Ganga. Rituals along the river, often considered repetitive and meaningless by the sceptics, have great potential to bring people together and to bring about change in human society.

*A kaanwad yatri prepares for the great march ahead*

*Offering Ganga waters to the sun*

The cultural significance of the Ganga is immense. The very special faith and respect for river Ganga in India are as old as Indian culture itself, which is evident from the descriptions in ancient Indian scriptures such as the Vedas, Puranas, Upanishads, Ramayana, and Mahabharata. The Vedas were written earlier than Puranas, and the Rigveda is the oldest among all the Vedas, composed roughly between 1700 and 1100 BCE. The Indus and the Saraswati were considered as major sacred rivers during the Early Vedic Age of the Rigveda. Ganga is mentioned in the Nadistuti (Rigveda 10.75), which lists the rivers flowing from east to west. In Rig Veda 6.45.31, there is clear mention of the word Ganga, while Rig Veda 3.58.6 says, "your ancient home, your auspicious friendship, O Heroes, your wealth is on the banks of the Jahnavi."

In Rig Veda 1.116.18–19, there is mention of Jahnavi and the Gangetic Dolphin in two adjacent verses. Later, three Vedas give much more importance to the Ganges (Thapar, 1971). This is in conformity with the shift of the Indian civilization from the Indus to the Ganga Valley. In the Rig Veda, the geographical focus was the *Sapta-Sindhu* (the Indus Valley and the Punjab) with Saraswati as the sacred river, but within a few centuries, Ganga became the sacred river, a pivot of civilization. The mythology of Hindu tradition and the sacred topography of the land of India flow inseparably together and in this scheme of things, Ganga is both goddess and river (Eck, 1998). In fact, respect for Ganga is a part of the Indian identity and the river emerges as the very symbol of Indian culture. Nothing else would qualify as a better symbol of the heritage of India than Mother River Ganga.

In this chapter, we shall look at the immense cultural diversity that the river represents, as it flows from the Himalayan uplands to the delta in the Bay of Bengal. As we go along, we shall pick up each aspect of life and rituals that enrich life along the Mother River.

*The confluence of Alaknanda and Bhagirathi at Devprayag*

# Pilgrim's Progress

## *Journeys of Transformation*

*A pilgrim gets the head tonsured*

Ritual journeys to the Ganga are usually driven by the concept of pilgrimage, *tirtha*, travel as penance and redemption. Jain texts contain some of the earliest references related to the term *tirthankara*, the renunciant pilgrim sage. A pilgrimage to the river and sacred bathing in the purifying waters is a matter of duty to all believers. As Mirza Ghalib (1828) said about Banaras, describing the city as the Kaba of Hindustan,

*May heaven keep*
*The grandeur of Banaras,*
*Arbor of bliss, meadow of joy,*
*For oft-returning souls*
*Their journey's end.*

Plainly put, the pilgrims' journey is referred to as a *tirtha yatra*, an act of atonement, redemption, that is obligatory and meritorious, usually with the rider that the greater the difficulty and pain endured, the greater the merit derived. Pilgrimage is essentially the physical and metaphorical enactment of the difficulties of a lifetime.

Ganga has, over the millennia retained its exalted status as the redeemer. As the Vishnu Purana says, all sins are instantly destroyed on the banks of the Ganga. The river, its myths and fascinating landscapes evoke an emotion of respect, leading to its acceptance as sacred. Chanchani (ibid.) informs us that at the time of the beginning of the composition of the Mahabharata, second century BCE to second century CE, pilgrimage from the Doab region, the land between the Ganga and Yamuna, towards the Himalayas, began to be seen as meritorious activity. He refers to an episode where two elderly sages counsel the Pandava brothers on the merits of undertaking pilgrimage, explaining

that Vedic *yajnas*, being beyond the reach of most people, pilgrimage actualized symbolic directional movements and was therefore, more efficacious. In fact, upon their advice, the Pandavas themselves undertook a pilgrimage, making their way around the Central Himalayas.

As Yudhishthira stood at Hardwar, the gateway to Ganga's upper reaches, the sage Lomaasa exhorted Ganga, goddess, and river, to protect the prince as he set forth on a journey into the mountains. He chanted:

*O Goddess Ganga, I hear thy sound*
*On Indra's golden mountain top.*
*Protect him, good lady, from these mountains,*
*This king whom all the Ajamidhas honour.*
*As the prince stands ready to enter these mountains,*
*Be his protector, thou child of the mountains!*

*Nicholson, 2010*

The young in India still touch the feet of the elderly in respectful greeting to literally gather the dust of uncovered feet that have been on the pilgrim path. Hence, many rituals like *mundan*, or the first tonsuring of a child, s*hraadha*, or the funerary oblations and *tarpana*, making a sacred offering for the dead person's soul to ascend to heaven, are compulsorily performed on the banks of a river. Those who cannot come to the Ganga, do it at other river banks, an association that makes all of them variations of the primal sacredness of the Ganga.

The word *tirtha* is closely connected to the ritual dimension of a human body in offering, especially parts of the right hand from which water is poured for ritual offerings. Specific names are given to each part of the hand used. *Pitrya*, for instance, is the interval between the right thumb and forefinger, *agneya* the space of the middle of the palm, and *daiva* the tips of the fingers. As one performs the rituals, priests exhort us to use just the right the part of the hand for gaining the exact merit from the ritual.

Pilgrim journeys are a way of life for all Hindus. Different festivals, customs, castes of an individual's community, one's life crisis and rituals, all dictate how and when a pilgrimage may take place. Millions of pilgrims travel to the Ganga each year and for many, the natural beauty of the river is very calming and can be a way to express emotion towards the gods. Pilgrims come to the Ganga seeking healing, and to be rid of any pain or suffering. Hindus from all over the world travel to Hardwar, Garh Mukteshwar, Prayag, or other banks to pour the ashes of loved ones into the river and to make offerings. Many cremate their dead in Hardwar

*A mendicant smeared with Ganga sand and ritual ash after the Kumbha snan*

*Pilgrims interact with the river in a number of ways*

and Banaras. Many come to not only appeal to Ganga, but also to touch, see, and bathe in the river itself. The physical river is worshipped as one may worship the image of a deity. Garlands of flowers are often placed around the neck of the image; in this case, garlands are strung out across the river. Floral offerings are common, as each day, thousands of pilgrims will drop bags filled with flowers into the river, as offerings to Ganga (Hammer, 2007). As Eck (1996) says, the *mahatmyas* or the texts of praise authored by pilgrims coming to the river over centuries, mention that every part of the Ganga is a *tirtha*, a spiritual ford and a place of pilgrimage.

A pilgrim toiling along a road toward some distant shrine as a goal is one of the most compelling and universal images of what it means to be human, depicting the individual as small and solitary in a large world, reliant on the strength of body and will. Walking the lonely trails, in dense forests and with the mighty Himalayas, or the Northern Plains, the ravines of Central India or the sands of Sagar Island, with the Bay of Bengal in view, one is reminded of one's own insignificance in the universe.

Modern civilization conditions us to center ourselves on the egoistic self and its possessions. But, while walking as a pilgrim, we give up these possessions and surrender our ego to that supreme power that has created the universe and is also endowed with the power to destroy. In pilgrimage, the journey is radiant with the hope that arrival at the tangible destination will bring spiritual benefits with it. Pilgrims achieve their own story by visiting and in this way become part of the religious discourse consisting of stories of travel and transformation.

Pilgrimage is work, or rather labour, in a spiritual economy in which effort and privation are rewarded. Nobody has ever quite articulated whether this economy is one in which benefits are incurred for labour expended or the self is refined into something more

*"Pilgrimage is work, or rather labour, in a spiritual economy in which effort and privation are rewarded"*

worthy of such benefit – and nobody needs to; pilgrimage is almost universally embedded in human culture as a literal means of a spiritual journey, and asceticism and physical exertion are almost universally understood as means of spiritual development. Pilgrimage is premised on the idea that the sacred is not entirely immaterial, but that there is a geography of spiritual power. Pilgrimage walks the delicate line between the spiritual and the material in its emphasis on the story, and its setting. Though the search is for spirituality, it is pursued in terms of the most material details like offering water to the *lingam*, meditating on the banks of the mighty Ganga, or visiting the wedding pavilion of Shiva and Parvati.

Pilgrimage unites belief with action, thinking with doing, and it makes sense that this harmony is achieved when the sacred has material presence and location. There is a subtle symbiosis between journey and arrival. Arriving without having travelled would be as incomplete as travelling without arriving. Pilgrimage makes it possible to move physically, through the exertions of one's body, step by step, toward those intangible spiritual goals that are otherwise so hard to grasp. In our lives we are eternally perplexed by how to move toward forgiveness or healing or truth, but we know how to walk from here to there, however arduous the journey. Pilgrimage simply helps us come to terms with our minds, enabling us to seek answers to the troubling questions we never dared to ask ourselves.

Transformational travel that pilgrimage ought to be, and always was, is about a change in thinking and behaviour through travel. While thinking of pilgrimage, especially in remote regions like the Himalayas, where existence is tough and living mostly subsistence, it is essential to focus on host community perspectives of transformational travel. In the Himalayas, pilgrimage grew organically through pilgrim-host relationships, relationships in the form of visitor *jajmans*, those who commissioned the rituals that coincided with the pilgrimage and the *pandas*, the performers of these rituals. Pilgrims also interacted with porter-guides, the *gomashtas,* the host communities managing the *chattis* or halting stations along the arduous routes and those who provided the essential services. Pilgrims from across the world interacted with the locals, and learning about host communities,

*Pilgrims on the boat to Gangasagar*

*"Pilgrimage also meant that the visitor undertook the rigour of the journey, preparing oneself, physically and spiritually, to undertake the journey"*

could critically reflect on life. Often, pilgrimage offered new perspectives on existence, the sheer ardor of walking through inhospitable yet naturally invigorating terrain transforming the self.

Pilgrimage in the past was about creation of new meanings, transformation of social, cultural, political, and environmental beliefs and, most importantly, moving towards new values of openness, tolerance, sharing, empathy, compassion, justice and peace, unity and oneness, and service to others. Pilgrimage also meant that the visitor undertook the rigour of the journey, preparing oneself physically and spiritually, to undertake the journey. It is said that in the past, people travelling to the source of the Ganga in the Himalayas, or to the island of Gangasagar in the Bay of Bengal, would often wave their final goodbyes to friends and relatives before embarking on the pilgrimage, in case they were unable to survive the rigours of the journey.

As research goes deeper, valuistic travel as a relatively new concept has begun to be discussed. One can describe a valuistic journey as encompassing the concepts of both traditional religious and modern secular pilgrimage, and such journeys may be seen as a means of demonstrating the values of their participants as well as enhancing their personal and social identity. In the field of psychology, it is found that the external environment can raise an individual's level of sensory awareness, which is directly related to spiritual inspiration and meaningful experience. Similarly, mindfulness makes travellers actively experience the place and keeps them from being distracted. Mindfulness is referred to as a state of mind that results from drawing novel distinctions, examining information from new perspectives, and being sensitive to context. Individuals connect their personal identity and deepest-held values with a place, because when an individual thoroughly experiences a place, one begins to gain a life that is full of quality and meaning, not simply in the material sense.

Studies have found that "mindful" travellers tend to learn more from their journey than other travellers and they are more aware of the

*Whispering a wish in Nandi's ear*

consequences of their behaviour. The feeling of "awe" is another element that contributes to a transformational journey. Awe is a result of certain experience often perceived and narrated as peak, spiritual, optimal, or an extraordinary experience. It usually happens in nature-based settings, like the routes along the Ganga, that also offers an extreme outdoor adventure. Awe affects individuals in dramatic ways.

Thus, transformative travel is, as Otto (1917) says,

*"...a harmony of contrasts; it is at once daunting, and yet again singularly attracting, in its impress upon the mind. It humbles and at the same time exalts us, circumscribes, and extends us beyond ourselves, on the one hand releasing in us a feeling analogous to fear, and on the other rejoicing us".*

The entire stretch of the Ganga, from source to mouth, offers innumerable opportunities for people to embark on their own journeys and seek emancipation from the river. The river and its tributaries are dotted with pilgrimage sites.

So, how does Ganga, the river that pilgrims flock to, acquire the exalted status of the waters of creation and sustenance? This question can perhaps be answered in myths attributed to the Mother River. Let us deduce some answers from them. People in India do not think of the river merely as a natural resource. In fact, it is intimately linked to their conception of the universe and its cosmic order.

*A hermit lost in prayer at Dashashwamedha Ghat*

# Rites of Passage

## *Living Dharma through Ritual*

*Sanskara at Banaras*

Water seems to have assumed a sacred character in the Indus Valley Civilization, extant in India from 2300 to 1800 BCE. The presence of water in religious ritual is indicated by the Great Bath, a 39 by 23 - feet pool with several smaller facilities, all of which may have had a sacred function. According to Ernest Mackay (1948), chief excavator at the site, "It seems likely that ceremonial bathing had its part in religious observances of the people of Mohen-jo-Daro…and that the large bath was the place where the people performed this ritual."

In most cultures, Egypt, Mesopotamian and Indo-Gangetic, the relationship between goddess, tree and water are significant, representing the prime value of fertility and birth. The life creating waters are indeed universally embodied as a goddess. As Darian (ibid.) tells us, "In their legacy, the Indus people bequeathed a series of numinous objects drawn into a matrix of equivalent functions: the goddess, the tree, and the waters, all representing life in its increase." As the Ganges Valley became the heartland of Vedic culture and the seat of empires, the Ganga began to occupy the central position of the goddess with ritual bathing in it and rites of passage on its banks became an essential part of the embodied culture of India.

In the Hindu fold, of the sixteen *shodasha samskaras* or rites of passage prescribed, several, especially the ones connected with coming of age, can be observed being performed along the banks of the Ganga.

For instance, in the *nishkramana samskara*, the newly born child's first excursion beyond the confines of home, is usually towards a water body, and if possible, Ganga. The *karnavedha samskara* is usually performed in the sixth or seventh month after birth and

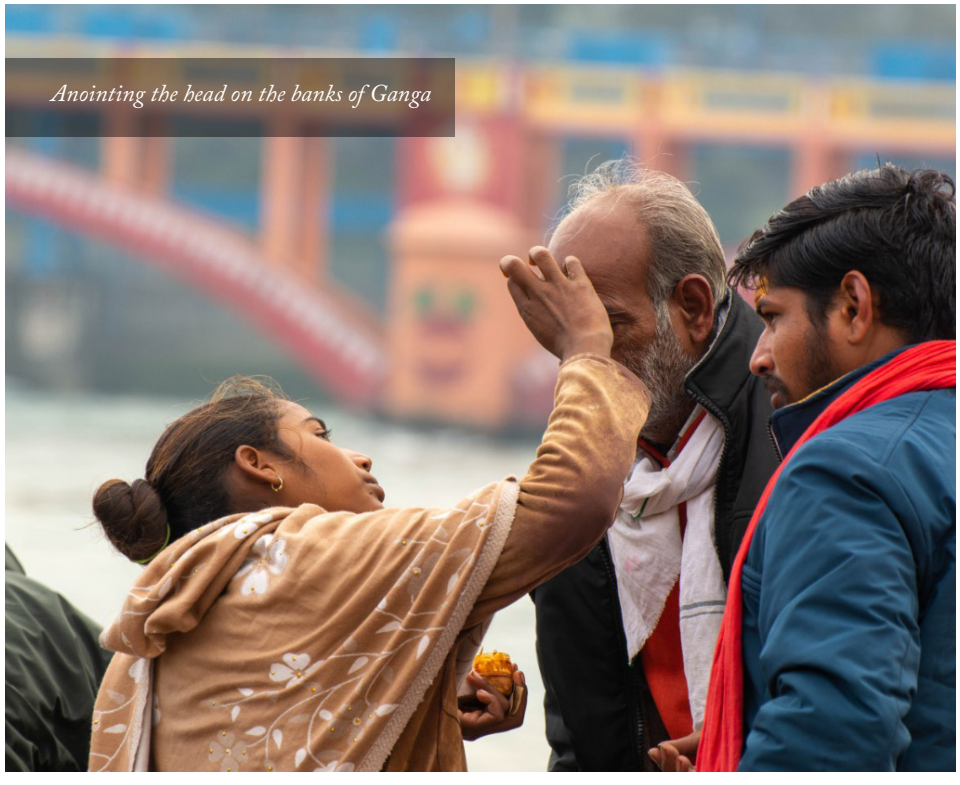
*"...the newly born child's first excursion, beyond the confines of home, is usually towards a water body, and if possible, Ganga"*

consists of the piercing of the baby's ear lobes, so earrings may be worn. Several professionals undertaking this task can be observed at pilgrimage sites along the Ganga. At the end of the first year after birth, or during the third year, the child's hair is shaved. This ritual shaving of the head, performed with ceremony, prayers, and chanting of Vedic hymns, is *chudakarana samskara*, and ghats are designated along the Ganga for the purpose. Several *Gurukuls* or familial schools established along the Ganga accept students, with the performance of the *upanayana samskara* for initiates, to the formal study of the Vedas. Upon performance of *Upanayana*, a boy traditionally moves from home to live in the *ashram* of the *guru*.

According to the Vedic tradition, *vanaprastha* is the third stage of life, following *brahmacharya* (student/disciple) and *grihasta* (householder). One is expected to leave behind one's life in the material world and live an ascetic's life devoted to service, study of the scriptures and meditation. Many arrive on the banks of Ganga to attain this stage.

For most believers, dying close to the Ganga is a blessing they strive for, in their lifetimes. Ganga is universally accepted as Mother River since she grants prosperity in life and peace in one's final moments. Blessed are those that pass away, chanting the name of god, with a few drops of Ganga water on their tongue. The *antyeshti samskara*, the final sacrament, the funeral rite, in not just the Hindu tradition but also a Sikh and Jain tradition, performed on the banks of the Ganga. If that is not possible, cremations are done on the banks of any stream and the ashes are brought for immersion in Ganga.

A ritual observed on the banks of the Ganga is the *Veni Daan*, performed at the Triveni Sangam, Prayagraj, near the confluence, by people from the South of India and mainly from Maharashtra. The ritual is performed by a married couple, wherein the husband trims a small portion of his wife's hair and then, together, they pray for peace and prosperity for their family.



*Anointing the head on the banks of Ganga*

Perhaps the most touching tribute to the Ganga, observed by us on the ghats of Banaras, was the A*ar-Paar ki Mala*. This is a ritual performed by young couples, who along with their families, proceed to the ghats of the Ganga, the next morning after the marriage has been consecrated. They bring with them a garland, each flower a few feet apart on a long string. Together, they move to the far bank, where sits the new bride with her family, holding one end of the garland. The groom, then, comes aboard a boat that crosses the river. He is holding the other end of the garland. When he reaches the other bank, the couple offer the garland, stretching across the vast expanse of the river, to the Mother River, seeking peace and prosperity in their new life.

During the *Kumbha Melas*, several seers from various *akhadas*, awaiting their turn to become Naga Sadhus are initiated. A majority begin to lead a life of renunciation and wait patiently for the twelve-yearly *Kumbha* celebrations, compulsorily following a path of *sanyasa*, under the guidance of senior seers for three years, before the opportunity might arise again. At *brahma muhurata*, the auspicious time of pre-dawn, after the tonsuring of hair, which signifies a giving up of all worldly attachments, they take a dip in the Ganga waters. Once this is done, they renounce all clothing, acquire the *kamandalu* or the vessel for seeking alms, signifying that they may now eat only when they receive food as alms. In this manner, the initiates give up their identity completely and adopt a life full of hardship. And yet, Ganga inspires many to sacrifice worldly pleasures to become Naga Sadhus, for they will now lead their *akhadas* for a dip in the Ganga for the *Shahi Snan*, the royal bath, and in the long term, uphold *dharma*.

Ganga, over millennia, has emerged as the holy water emanating from Brahma's *kamandalu* or water vessel. This, according to Sivamurti (1976), is the purest concept of knowledge of ritual and philosophic thought. The *sruk* or the sacrificial ladle and the water vessel indicate that Brahma is the initiator of Vedic ritual itself. In the Indian ritual systems, the *abhisheka* which precedes and concludes all ceremonies, especially Vedic sacrifices, mainly depends on *tirtha jala*, or the holy water. Poured on the head as in *abhisheka*, Ganga water purifies the outer frame, the physical body. By a sip or *acamana*, she purifies the interior body. From the water vessel, she is poured at the feet of the worshipful one as a token of respect and welcome. This is in *padya*, which immediately follows *arghya*, her water poured in the palms as an act of cleansing.

*There is a constant rush of pilgrims to the Ganga banks*

# Economy of Ritual

## *Livelihoods along the Ganga*

*Jad Bhutia wool weavers from Harsil Valley near Gangotri*

On the ghats of the Ganga, in the pre-eminent pilgrimage sites of India, thrives the economy of ritual. Several ritual practitioners can be observed, offering services to clients arriving from all parts of the world. Sites along the Ganga depend significantly on pilgrim trade, therefore, fluctuations in pilgrim traffic effects livelihoods.

The economy of popular pilgrim spots along the Ganga is quite similar in structure to almost any other season based touristic economy. However, what adds another dimension to the economies of pilgrim spots along the Ganga are the intangible transactions. These transactions are not empirically verifiable, but matter a lot to the person travelling to the banks of Ganga. For instance, acquiring religious merit and removing one's sins cannot be measured by conventional means. However, the strong belief in the minds of those that consume them that these are genuine transactions and authentic experiences, and it is particularly efficacious to transact them close to the Ganga, make them an important element in the pilgrim economy.

The most common expression for pilgrimage rituals, according to Lochtefeld (2010) is *snan-dan*, that is, a ritual bath followed by gift giving. Giving alms is always meritorious, but the benefits from gifts at places such as Hardwar or Banaras are deemed immeasurably great. Even though pilgrims may not completely believe in these promised benefits, there is no doubt that they continue to give and therefore, residents of these places provide visitors multiple opportunities to generate religious merit through the act of giving. Connected to this is the Hindu belief that as Raheja (1988) describes, "the poison in the gift". This

> ***"...but no river in the world has given more comfort and solace to the dead, the dying, and the next of their kin, than Mother Ganga"***

refers to the generally held belief that when you give away something that is dear to you, you are also claiming merit for parting with it. Such generous gifts also enhance one's status.

Rites and rituals along the Ganga acquire a special solemnity when they relate to death. According to the Bhagwad Gita, The Song of God, the 700-verse scripture that is part of the epic Mahabharata, leaving the human body is like the mere changing of a garment. You leave one and don another, to continue your struggles in the never-ending cycle of birth and death, until you acquire enough karma, good deeds, to break free. It takes several lifetimes to comprehend this truth, but five minutes at the ever-busy cremation ghats along the Ganga can bring home this fact like nothing else can. But, for the human mind, lost in *maya* or the playfulness of the spirit, the detachment of the cremation grounds is soon overtaken by the ways of the world. Rivers across the world may have given the gift of life to people who lived on their banks, but no river in the world has given more comfort and solace to the dead, the dying, and the next of their kin, than Mother Ganga.

So, what is left when one dies? A mere heap of ashes? Or perhaps just a name, and a person's legacy. But do we even know our great-grandparent's names? Do we have any knowledge of our ancestry beyond a couple of generations? An elaborate system of keeping family registers has existed in the sacred town of Hardwar, and perhaps some other pilgrimage towns along the Ganga, where people usually come to bid farewell to their loved ones on their onward journey from this world? If you are not certain about your ancestry, this is the place to come to. Make a few discreet inquiries and soon you will be sitting with a *panda*, the writer of ancestors' accounts for your native village. Find the right scroll, and you may get to see original signatures from several generations from within your family! At the Kusha Ghat in Hardwar, by the fast-flowing Ganga, where last rites of many a mortal are performed, not a day passes when grief-stricken families do not come from different parts of the world, with the remains of their dead, soon, to return to the ways of the world, to the world of *maya*.

It is believed that Sage Dattatreya practiced penance here. The ghat itself is as old as the river and the

*Becoming Shiva to earn a living*

*Piles of wood for cremation near the newly built gates of the Kashi Vishwanath corridor*

human encounter with death in its present form, was built by the queen of Indore, Ahilyabai Holkar around the 13th century. People perform the *Pinda Dana* or the donation of the mortal body to the elements, after the cremation of the bodies of their loved ones at Kankhal. After this, they proceed for a tonsuring at the Nai Ghat, or the bank of the barbers. But the most significant task to be performed is the entering of an update in the register of families, kept by the *bahi* writers, where a meticulous record is maintained by these genealogists, the keepers of ancestors and family trees.

All around the Kusha Ghat, in small cubicles for offices, the record keepers sit on the ground, closely guarding and protecting the bahis, the record books that contain details of ancestors, spanning several generations. It is believed that Lord Rama, who, in keeping with his father's oath, was himself dwelling in the forest while his father Dashratha passed away, came to these ghats after finishing his exile, to perform the dead king's last rites. The priests gave him comfort and he gave them the right to stay on by the Ganga and maintain the family registers from across India, and even from what is now Pakistan, Nepal and beyond. There are an estimated 2,500 genealogists here, who regularly update family registers of people who come to Haridwar to perform the last rites of their loved ones. These men can usually be found, busily jotting down recent births, deaths, and marriages. Many of these handwritten scrolls have been meticulously maintained by over twenty generations of *pandas*, or priests, making it a popular family business and a historic practice. Most record keepers are acutely aware that their clients come to them in moments of grief. Therefore, they extend all help in arranging for the performance of the last rites too. *Pandas*, in fact, are aware of customs and rituals back home while they are also responsible for designated registers categorized according to original districts or

villages of a family's ancestors. Hence, a kind of trust develops with people of a particular region. The records are written in the Devanagari script and many of these ledgers are over 300 years old.

Carefully maintained with reed pens, and Indian ink mixed with resin from the mango tree, all the missing links are updated when the family visits for a cremation. Then these long scrolls are rolled and kept carefully, safe from fire and flood. Many of these genealogists have been in business for over 14 generations. In fact, some of the *bahis* are even older than Tulsidas's Ramayana. One scroll is even believed to bear the signature of the revered saint, Guru Nanak. Most of the older records were written on *Bhojpatra*, the bark of the Himalayan birch tree, or on Palm leaves, and have been severely affected by moths and moisture. Once this happens, older records are transferred manually to new paper scrolls. A few *pandas* have even begun digitizing records, with the data once fed into the drive, offering the rotten, old scrolls, like all mortal remains, to the Ganga.

But over the years, as traditions have changed, fewer people now come to Haridwar for cremating their dead. It won't be long before these handwritten records, a significant slice of heritage along the Ganga, fade into oblivion. According to the Genealogical Society of Utah, USA, Hindu family records dating back to as far as 1194 were once maintained by the Haridwar genealogists. But, with changing times, what is the future of this practice? Hopefully, with records being digitized and available online, the *bahi* system will get a new lease of life. Like all great traditions, this one of systematic recording of ancestries will have to reinvent itself, acquire a new garment as it were, to pass the test to time and mortality.

Such rituals, and the economies associated with them, result in vast networks of inter-connections. For instance, the *Char Dham Yatra*, the *Kumbha Yatra* or the *Ganga Sagar Yatra*, in the past was also facilitated by these networks. You would be accompanied by a messenger designated by the panda, working as a guide, cook and facilitator. With the growth of the online travel industry, such networks are losing their traction, and yet their survival is still cause for wonder.

*Awaiting seekers by the Ganga, Banaras*

# Folklore & Legend

## *Immortality in Orality*

*Chakravyuh ritual in the Garhwal Himalayas*

Let us think of the story of Krishna's mouth. Krishna's mother fears that the little boy, Krishna, has put some dirt, something dangerous in his mouth. She asks him to open his mouth. He refuses. She asks again and again, and finally he opens his mouth, and she looks in. There, in amazement, bewilderment, even terror, she sees all the worlds. Contained in her baby's mouth is the unspeakable, unmanifest Absolute. Having revealed it to his mother, Krishna closes his mouth and with it, erases his mother's memory of what she has experienced. With this lack of remembrance, normalcy returns, mother and baby are united quickly once again, simply as mother and infant. It is like this with the folklore and legend around the Ganga. One looks to the Mother River and sees all there is to be seen. But one cannot remember it, even though something within constantly tells you that your peace can only be found on the banks of this divine river.

Perhaps the greatest gift to humanity, through the oral culture of India is the Ramayana. And one of the most dramatic and complex performances of the epic is staged in the ancient city of Banaras. The *Ramlila* of Ramnagar is vast, touching upon several texts. The Ramayana of Valmiki, never uttered, is present in every fibre of Rama's story. On the other hand, the Ramcharitmanas of Tulsidas is chanted in its entirety before the start of the performance of *Ram Leela*. The *Ramayanis* spend ten days on the covered roof next to the square, where on the 29th day of the performance, the staging of *Bharat Milap* happens.

The faithful daily audience of the *Ramlila* are referred to as the *nemis*. They consist of ordinary folk and hundreds of *sadhus* who are fed by the Raja of Banaras. Tulsi's master-

*"The Ramayana has so caught the ordinary Indian's fancy, that Mahatma Gandhi incorporated its song in the freedom struggle"*

piece is the kernel of the performance, but like a tree springing from a great taproot, the branches are spread far and wide. The Ram Nagar *Ramlila* is truly a multi-stage, multi-dimensional theatrical performance. It is impossible to catch every nuance because too many things are happening simultaneously scattered out across Ramnagar. For instance, while Rama is in Chitrakoot, Bharata sits at Nandigram; when the army of monkeys and bears moves towards Rameshwaram, already, Sita, with a band of devoted female spectators awaits them in the Ashoka Garden of Lanka; when Lakshman is wounded by Meghnad's *shakti*, and Rama pitifully moans his fallen brother, Hanuman is more than a mile away chasing after the herb that will revive Lakshman. And even when the story itself is over, and Rama coronated, his lesson preached in the marble gazebo of Rambagh, his crown removed for the last time back in the *dharamsala* near Ayodhya, and the five boys who are the *swaroopas* returned to ordinary life, the masks – some of papier-mâché, some fashioned from copper and brass – put away for a year, the *Ramayanis* continue to chant until every last syllable of the Tulsidas text is sounded. The *samvads*, or dialogues, written during the 19th century, are recited for 30 to 31 nights continuously, are intended to translate the feelings, *bhavas*, and *rasas*, of the great epic. But for all this chaos, the epic attracts thousands of people, who are at once spectators and devotees.

A similar tradition has existed in Mirzapur for centuries, where the *Panchami ka Bharat Milaap* near Chaube Tola concludes the 10-day staged Ramlila. All artists performing it are locals and the *jhanki* or tableau of the Bharat Milap, just after midnight, is one of the most anticipated and spectacular events.

The Ramayana has so caught the ordinary Indian's fancy, that Mahatma Gandhi incorporated the song in the freedom struggle, that many visitors to the Ramnagar *Ramlila* sing on the boat ride home:

*King Rama, leader of the Raghu Dynasty,*
*Husband of pure Sita:*
*May we worship this Sita-Rama.*

*He is known as Ishwara or Allah,*
*May this God bestow good sense on everyone.*

*Samudra Manthan and the masked dances, Tehri Garhwal*

*Pandava Ritual from the Himalayas*

While the *Ramlila* may be the ubiquitous folk tradition in the plains, in the Himalayas, where the Ganga emanates, it is the Mahabharata that dominates. People believe themselves to be descendants of the Pandavas and therefore the folk theatre in Garhwal has some living traditions that include the ritual theatre of the Pandavas, consisting of well-defined performative episodes such as *Chakravyuh, Garurvyuh, Kamalvyuh, Makarvyuh, Suchivyuh, Haathi-Duryodhan, Gainda, Lakshagriha, Moru Daar, Kalingiri Danu, and Kangra ka Jogi.*

The folk theatre in Garhwal Himalayas gradually grew and developed within the cultural context, reflecting the patterns and sub-patterns of hill culture. The broad themes such as love, hatred, victory, valour and regaining lost empires are shared here as well. The most extensive body of folk performance is that based on the Mahabharata tales, popularly known as the *Pandava Nritya, pando lagaana* or the Pandava dance theatre. Pandava dance theatre illuminates social issues and informs local culture more perhaps than any other text.

The textual or classicist structure of the Mahabharata epic composed by Ved Vyasa is a unified thematic representation. However, there are variations found all over India, especially in the oral representation of the Garhwal Himalayas, manifested in the form of the *Pandava Lila*, an enactment of the history transmitted through the performative art. All the Mahabharata characters, particularly the five Pandava brothers, their mother Kunti and Draupadi, their consorts are recognized by these dance forms which are performed by the folk artists who personify these characters and are also possessed by them. The Mahabharata tradition is present in folk forms in the Garhwal Himalayas, and its dominating aspects are oral and performative, preserved in the religious folk songs known as *jagars* which are sung throughout the night by *jagari purohits* accompanied by the drum-

mers, locally known as *das* or *ouji* and the dances by the *paswa* or medium personifying the characters and the characteristic dance of the individual Pandavas, and their consort Draupadi.

But why does the tale of the Mahabharata take precedence over all others in the region? Historical research is gradually locating the Mahabharata in this region. The Pandavas are said to have ascended to heaven from the Himalayas. A famous myth in Kedarnath Valley goes like this:

Pandavas were on their way to Swargarohini Peak. One by one they fell aground to death. Draupadi, Kunti, Nakul, Sahadeva and Bhima died one after another. Dharmaraj, the most principled, Yudhishthira was being followed by a black dog blistering with boils and worms on its skin. Yudhishthira took out a knife and slit open his own thigh where he stuffed the rotten skin and worms of the dog. Suddenly a chariot from heaven landed and airlifted Dharmaraj Yudhishthira and his ailing dog that was the manifestation of Yama, the god of death.

***"The banks of Ganga are agog with oral traditions and describing the major ones would require a separate volume"***

*A depiction of the legend of Alha and Udal in a museum at Mirzapur UP*

Arjuna was the last to stand on the mountain peak. It was the time of autumn, the season of calm and plenty. Arjun surveyed the entire Himalayan slopes with his supernatural ken. Everywhere he found the ripening paddy fields, lush green valleys, and ripened fruits, and crops. A passion to relive this human life flashed within him. He took out an arrow, stretched it across his *Gandiva* (bow) and then shot it towards the valleys saying, "Hereafter this arrow of mine shall enjoy the offerings of the devotees of Himalaya."

Since then, the spirits of the Pandavas revisit their earthly kin every year, generally during the season following soon after the Diwali festival. The banks of the Ganga are agog with oral traditions and describing the major ones would require a separate volume. Therefore, we can just pick a few. The folk traditions of the Hastinapur region are linked to such traditions in other parts of the country through renditions like the *Alha*, and there are others which are primarily rooted through history and tradition to this region itself, namely *Ragini, Swaang* and *Holi*.

The *Alha* tradition originated in about 1160 CE and due to the other contemporary renditions, the singing of Prithviraj Raso, the *Alha* rendition remains mostly neglected.

*Singing Kajri by the Ganga*

The *Alha* rendition deals with stories of Rajput warriors *Alha* and *Udal* who were Banafal Rajputs and generals under the last Chandel King Parmardidev. The *Alha* rendition was one of the most widespread oral renditions of war between various Rajput clans of northern and central India. It was sung through vast tracts of India in all the various languages and dialects that were prevalent in this region including languages spoken on the banks of Ganga, east of Delhi – Bundeli, Kannauji, Bhojpuri etc. There is a distinct *Alha* rendition of Western Uttar Pradesh, sung in the local dialect of this region, variously called *Kauravi* or *Khariboli*.

*Raginis* and *Swang* are also significant. *Swangs* are stories ranging from those of great epics to folktales of the medieval era as well as of the later period, one of the interesting and prominent ones being Sultana Daku. *Dola* is an almost lost tradition and appears to have been probably derived from *dhol*, a percussion instrument. *Dola* used to consist of 30 stories and is a very complex method of singing as each of these stories has parts of three different story formats.

Further down the river, featuring in the oral tradition is the legend of Veer Lorik known as *Lorikayan*, a significant part of Bhojpuri folklore of Eastern Uttar Pradesh and some parts of Bihar. Its protagonist is Lorik, whose life events are narrated in this folklore full of heroic *rasa*. Lorik is remembered as a great ancestor of the Ahirs and is celebrated in performances that continue throughout the night, in which men perform the *Chandeni Premagatha* dance in special costumes. *Timki* and *dholak* instruments are used as accompaniments to the dance moves. The Sufi poet Maulana Dawood chose the folklore of Lorik and Chanda to write *Chandayan*, probably the earliest Sufi love poem, composed in 1389.

Another folk form popular in Baliya and Kannauj is the singing of the folklore of *Alha-Udal*, performed

*Performing the legends of Shiva by the Ganga*

in unique lecture-demonstration or recitation style. *Alha* is an oral epic, the story is also found in several medieval manuscripts of the Prithviraj Raso and the Bhavishya Purana. There is also a belief that the story was originally written by Jagnik, bard of Mahoba, but no manuscript has yet been found. Originating in the Bundelkhand region, *Alha* recounts the intertwined fates of the three principal Rajput Kingdoms of North India on the eve of the Turkish conquest (late 12th century CE) – Delhi, ruled by Prithviraj Chauhan, Kannauj ruled by Jaichand Rathor, and Mahoba, ruled by the Chandel king Parmal. The heroes of the epic are the brothers Alha and Udal, retainers of the Rajput status with exceptional valour, whose cause is the protection of Mahoba and defence of its honour. Called the Mahabharata of the Kaliyuga, *Alha* both parallels and inverts the themes and structures of the classical religious epic. The *Alha* cycle consists of fifty-two episodes in which the heroes confront enemies of Mahoba or the resistant fathers of prospective brides. It ends with the great historical battle between the kingdoms of Mahoba and Delhi, in which the Chandels were annihilated and the Chauhans so weakened that they could not resist the subsequent attack of the Turks. It is believed that this epic, full of valorous descriptions, the *veer rasa*, inflamed such strong passions during its performance that the audience would pick up their weapons and go into bat-

***"The people of Sunderbans believe that you can enter the forest anytime you like. Whether you will return alive, depends on Bon Bibi"***

tle against an imagined enemy, causing bloodshed. Hence, the performance only began when all sharp objects had been safely tucked away.

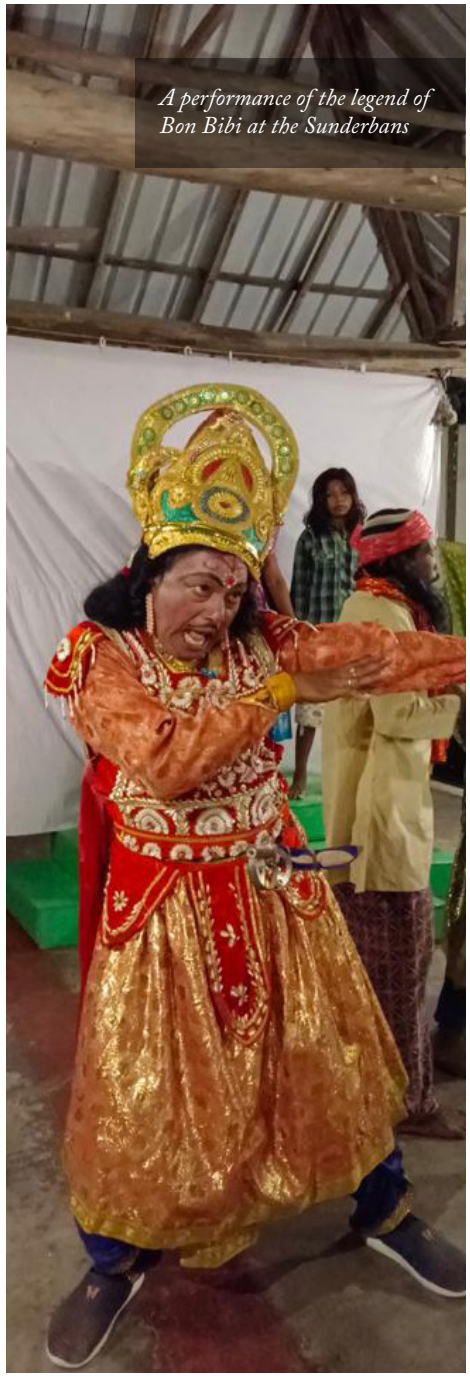
In Bengal the well-known saint, Chaitanya Mahaprabhu, propagated ideas of *bhakti*, or intense devotion to a personal God, through *kirtan* or a collective recitation of hymns in form of religious processions and is credited in the Vaishnava tradition with the introduction of the custom. The congregational singing of Chaitanya was done to folk tunes and accompanied by the boisterous booming of drums and cymbals. This oral tradition has been perfected in the Nadia district of Bengal, with spectacular and spirited processions.

Down river, in Bengal, B*hatiali* is a river song mostly sung by boatmen while going down streams of the river. The word *bhatiyali* comes from *bhata*, the ebbing of the tide. The evocative songs are mostly sung in several parts of greater riparian Bengal delta. *Bhaitiali* lyrics traditionally consist of metaphorical and emotional verses about the waters and the situation of boatmen and fishermen, comparing the crossing of a river with leading a life of devotion. Among the fourteen subjects of folk music in the region that include *deha-tatva*, about the body, and *murshid-tatva*, about the guru, *Bhatiali* combines them with *prakriti-tatva*, the elements of nature.

Sunderban is the largest continuous mangrove forest in the world where humans reside in close proximity to a thriving population of crocodiles, snakes, sharks and man-eating Royal Bengal Tigers. Many of them depend on the forest for their livelihood as fishermen, crab-collectors and gatherers of the thick and strong honey that grows in combs on the *Hetal, Gorjon, Goran* and *Sundari* Mangrove trees.

The people of Sundarbans believe that you can enter the forest anytime you like. Whether you will return alive, depends on Bon Bibi. Hence, the 54 inhabited islands of the 102 deltaic islands of the Sundarbans are studded with temples to Bon Bibi and her twin brother, Shah Jongoli. Legend has it that Bon Bibi was born far away in Saudi Arabia. Her father was Fakir Ibrahim, who lived in Medina, and her mother was Gulal, a woman from Mecca.

Bon Bibi and Shah Jongoli came to the Sunderbans to realise their divine purpose, a story that is recounted in *Palagaan*, which recounts her birth and the story of Bon Bibi and Shah Jongoli's triumph over the fierce Dokkhin Rai and his mother Narayani, who represent tigers that can transforms into humans at will, and the other dangers of the wilderness. It is the third part of the story, *Dukhey Jatra*, which is most performed in the Sundarbans. In the play, a group of honey-gatherers go to the forest with a little boy called Dukhey. His mother wants him to stay home but cannot afford to feed him as they are desperately poor. When you have nothing to eat, you have no choice but to go to the forest to work, is something the dwellers of the delta constantly deal with. Unfortunately, Dukhey does not return from the forest. The honey-gatherers



*A performance of the legend of Bon Bibi at the Sunderbans*

tell his mother that he has been taken by a tiger and will never return to her lap again. In the forest, the child calls out to the goddess for protection. Bon Bibi rescues Dukhey and restores him to his mother.

Most people in the region identify with Dukhey and think of Bon Bibi as a mother figure. In one of the most ecologically fragile regions of the world, a strict code, tied to the belief in Bon Bibi, governs human acquisition of nature's bounties. The islanders believe that one must enter her kingdom without carrying any weapons. One must enter the forest with a pure heart and empty handed. You must also not take more than you need. You may enter only if you have nothing to eat at home and have to seek your livelihood in the forest. You must not defecate in the forest, smoke or wash utensils. Behind the *Palagaan* is the express belief that once a tiger chooses you as his next meal, there is nothing much you can do about it!

The *Palagaan*, is a story that can be found in a 19th century text called Bon Bibi Johuranama (The Chronicles of Bon Bibi's Glory). The language of the Johuranama is Musalmani Bangla, written in the Bengali script, with the book opening to the right, in the Arabic style. However, Bon Bibi's worshippers do not think of her in terms of religious denominations, but as a forest power that extends her protection over individuals of all communities equally.

In the *Palagaan*, human protagonists are not the heroes but the subjects or prey of nature. People reduced to their primal condition – frail skin and bones, fear and helplessness – against the whims of nature is the old normal. And so, the actors of Bon Bibi's Palagaan not only educate or entertain but also advocate total surrender.

Battered by cyclones through the ages, the Sundarbans is usually down to its last dreg of resilience. Life on the islands will only become harsher with the rise in sea levels, cyclones and climate change. In this turmoil, the *Palagaan*, a performance that transcends religious divides, will sustain the hapless islanders.

*Palgaan performance in South 24 Parganas, West Bengal*

# Fairs & Festivals

## *Meeting in Celebration*

*At the annual fair of Vindhyavasini Temple, in the Vindhyanchal region*

Fairs and Festivals are at the heart of social life along the Mother River. Almost every region has its own auspicious dates and celebrations. In the Himalayan regions, where the Ganga originates, the colloquial term for a fair is *kauthig*, the etymological root being the Sanskrit word *kautuk* or excitement. The myriad fairs and festivals along the Ganga evoke much of this, and are generally referred to as *melas*, a word with its roots in *mil* or meeting.

The Ganga basin is the focal point of Hindu and Buddhist pilgrimage and culture, a site of wide-ranging festivities and rituals. Several important centres of spiritual learning have flourished for centuries along the Ganga's banks and tributaries. At the headwaters of the Ganga in the Himalayas, sacred shrines at Tapovan, Gaumukh, Bhojbasa, and Gangotri mark the sources of her power. The shrines of Kedarnath and Badrinath also celebrate their position in the upper reaches of the watershed. Farther downstream in the Himalayas are Uttarkashi and Rishikesh, and along the plains lie Haridwar, Rishikesh, Garh Mukteshwar, Prayag, Banaras (Kashi), Vindhyanchal, Sonepur, Sultanpur, Nadia, Kalighat and Gangasagar. Several sacred complexes are also located along the river Yamuna, including Mathura and Vrindavan. The Hindu spiritual centre of Vindhyachal and the Buddhist sites of Sarnath, Gaya, Rajgir and Nalanda lie inland within the basin. On important days of the Hindu calendar, millions of people converge on the river at selected cities to pray and bathe in the waters. People congregate in large numbers on occasions like Kumbh Mela, Kartik Purnima, Makar Sankranti, Chath Puja, and more.

*Magh Mela down the river*

# Magh Mela

In the upper Himalayas, above the town of Uttarkashi, close to Gangotri, lies a region of brisk trade and agro-pastoralism. In fact, so much trade happened across the border between India and Tibet in the region, that the town itself was referred to as *Badahaat* or large market. This trade took place across the Jelu Khaga Pass in the high Himalaya. On the other side of the border, into the Tibetan region was the market of Chabrang Zong. The Magh Mela of Uttarkashi would be a day of celebration where traders from as far away as Tibet and Afghanistan would come together to trade in commodities such as Borax, Pashmina Wool, Jaggery, Salt, Livestock and Cotton.

Uttarkashi is so named because it is like Kashi, a famous *tirtha* along the Mother River, joined by the Asi Ganga, coming in from Dodital. The old Vishwanath Temple and its historic trident attract several devotees. The region upstream of the town is referred to as the *Bhot*, and the community that resides here are the Jad Bhotia, who have dual identities across the border. They were the traders buying and selling from their Tibetan counterparts, each trading clan dealing with a specific clan known as a *Mitra*. Such was the business here that the Pathans from Peshawar built a skywalk bridge in the Nelong Valley – from where flows the Jad Ganga into the Ganga – known as the Gartang Gali.

*Gathering at Nauchandi Fair*

# Nauchandi Fair

Nauchandi is an important festival celebrated to worship Ma Chandi Devi. A temple for the goddess was built in Meerut, which is believed to have been visited by Mandodari, daughter of King Maya, wife of Ravana. The Nauchandi fair was first celebrated in 1672, as a cattle trade fair. However, over the years cattle trade was replaced by other activities. The month-long celebration takes place after Holi. It continued even during the British rule and is celebrated to this day.

*The Kumbh Mela in Haridwar*

# Kumbh Mela

Perhaps the biggest and largest human congregations on earth are the Kumbh Melas. Out of the four, two are held on the banks of the Ganga, at Hardwar in Uttarakhand and at the Sangam confluence at Prayag. Being the oldest human congregation known to man, one runs out of superlatives describing the Kumbh Melas. Recognized by UNESCO as Intangible Cultural Heritage of Humanity, the Kumbh Mela is a festival like no other, where hundreds of millions gather at the sacred banks of the Ganga to take a dip of faith. But there is much more to Kumbh than just the statistics and faith. It is a festival that promotes understanding of divergent beliefs, an unbounded exchange of knowledge, and instils a deep sense of humility. The highest form of knowledge, it is said, cannot be attained by reading, or understanding alone – it must be experienced. This is what the Kumbha is all about.

India is hailed as a land where divergent views have co-existed for millennia. Within Hinduism alone there are numerous sects, each with their own belief systems. Kumbh has been the melting pot, allowing all of them to periodically come together, exchange ideas, and inculcate a deep-rooted understanding of what it is to be alive. The Kumbh story originates from a creation myth – which inspires reverence for the sanctity of all creation, blurring the boundaries between what is generally considered "good" and "bad". Historically, it is the oldest recorded festival of India finding mention in the Vedas as well as the accounts of the celebrated seventh century traveller, Hiuen Tsang or Xuanzang.

Kumbh is also an opportunity for householders to learn from the *Sadhus* and *Sanyasis*, and establish the right balance between engagement with worldly affairs and matters of the soul. It is also a great place to understand simple life perspectives of the average Indian residing in the villages – who may be lacking in formal education but is often miles ahead in the understanding of the fundamental tenants of contentment and a simple life.

*A mendicant from Punjab at the Haridwar Kumbh*

Notwithstanding the above points, the Kumbh is a magnificent spectacle too! Millions of people gathered in one place, colourful holy men, Sadhus, wondrous feats of asceticism, theatre, performing arts, and piety on an unprecedented scale – largely in the most peaceful manner.

Above all, the Kumbh allows you to make a journey to the self. The Kumbh Mela most definitely is an event beyond imagination, the kind that encompasses every aspect of the human existence, and yet, seeks to distance itself from the earthly cycle of life and death and move towards a higher thought. It is one of the pillars of an ancient civilization; a glimpse of eternal hope combined with transitory life. It is, for want of a more powerful word, a vision of faith, the faith of a 5,000-year-old behemoth called India. For a culture that acknowledges the material – but points to a deeper meaning of life – the Kumbh is a phenomenon bred in the soil and nourished over centuries. Even as the holy scriptures from the Vedic era prescribe prayer, fasts, ritualistic holy baths, charity, and good deeds, as the way to a well-balanced and well lived life, the Kumbh has a place all its own. The founding legend attributed to the *Puranas* (ancient texts containing the narratives of the history of the universe and India), has it that the demons and the gods churned the ocean for *amrita*, the elixir of eternal life. In the ensuing struggle, a few drops of it fell out of the *kumbha* or pitcher they were carrying and landed on four places that are today known as the holy cities of Prayag, Haridwar, Ujjain, and Nashik. It is believed that these drops gave unknown, mystical powers to these places and hence observing the congregation called the Kumbh Mela (literally translated: the fair of the pitcher) in any of these places is supposed to impart great merit to the participants.

Slated the biggest peaceful congregation on planet earth and still growing, the pilgrimage is noteworthy for the sadhus or ascetics from every nook and corner of India who articulate the transitory aspect of life and stress on the need to look beyond the physical and emotional limits that human beings set for themselves. Visitors throng from India and abroad to interact with the holy men and women and benefit from their wisdom and understanding of life. The *sadhus* belong to as many as thirteen distinct *akhadas* or groups as per their ideology. *Darshan* (opportunity to meet with the *sadhus*) is crucial to the experience of the Kumbh Mela and because of this, worshippers must be careful to not displease the mendicants. Meeting the *sadhus* is

***"The akhadas lend an element of interest to the celebration"***

*Sadhus at Kumbh Mela*

meticulously arranged and worshippers often leave tokens at their feet.

Attendees at the Kumbh Mela come from all sections of Indian society, ranging from *sadhus* who remain *naga* or sky clad and practice the most severe physical discipline, to hermits, who leave their isolation only for these pilgrimages, to techno-savvy, jet set teachers resplendent in the finest clothing. Vast crowds of disciples, friends, and spectators join the individual ascetics and organizations. The *naga akhadas* often claim the holiest spots at each Kumbh Mela's most auspicious moment. Although the government now insists on an orderly bathing order, history records bloody disputes between groups vying for precedence. But perhaps the most poignant are the tales of the *kalpavasis*, the pilgrim families who just walk into the congregation with most of their worldly belongings on their heads, to just "be" by the banks of the Mother River.

The *akhadas* lend an element of interest to the celebration. An *akhada*, in the Indian context refers to a *sampradaya* or sect, a group, a sub-unit or a military community, and a place for training, which is a monastery for religious renunciates in the *Guru-Shishya* tradition. Members of an *akhada* train under a guru and they do not live a domestic or homely life. Some strictly practice *Brahmacharya* (celibacy) while others may completely renounce worldly life. Initially, there were only four *akhadas*, which have split into subsidiary *akhadas* due to differences in the leadership and expansion in the number of followers. There are about thirteen *akhadas* now that are allowed to participate in the Kumbh Mela, and they have formed the Akhil Bhartiya Akhada Parishad with two representatives from each.

By the end of the 13th century, the tradition was well established. Adi Shankaracharya is believed to be the founder of seven major Indian *akhadas* known as *Mahanirvani, Niranjani, Juna, Atal, Avahan, Agni* and *Anand Akhadas*, though the historical evidence for this is quite sketchy. The *Akhadas* are divided into four categories, the *Sanyasi, Bairagi, Udasi* and *Kalpavasi*.

*A sadhu smeared with ash and covered with Rudraksha*

By the end of the 16th century, coinciding with the Mughal invasions, Rajput warriors had begun to initiate peasants into arms training to provide services for resisting attacks on religious institutions. *Naga sadhus* have a non-orthodox, semi-*Tantric* background, and were historically, particularly conspicuous when they served in the standing armies of various north Indian regents during the eighteenth century. During the latter half of eighteenth and early nineteenth centuries they were employed, in many instances as a regularly paid standing army, in service to Maharajas of Jodhpur, Jaipur, Jaisalmer, Bikaner, Udaipur, Baroda, Marwar (Western Madhya Pradesh), and Bhuj (capital town of Kutch).

In the general breakdown of law and order during the disintegration of Mughal authority, after the death of Aurangzeb in 1707, many groups of *Sanyasis* had organized themselves and began marauding the principalities. British records contain numerous reports of incursions by these armed groups, the first of which took place in 1743. Therefore, *Naga sadhus* were often at the forefront of peasant unrest and rebellion against colonial repression and excessive taxation. *Naga sadhus* are given some arms training, but generally their martial skills were those of offering themselves as sacrifice for the protection of *dharma*. The junior-most position of a *sadhu* of the *akhada* is known as *Huddanga*. After three years of rigorous training, he rises to the position of *Khiladi*, followed by *Rakmi* and *Nagapani*. After a *Nagapani* attends all the Kumbh Melas of Allahabad, Nasik, Haridwar and Ujjain, and also becomes skilled in warfare, he is promoted to the rank of *Nagateet*, which is the highest position in the cadre of the *Nagas*. It takes twelve years for a *sadhu* to become a *Nagateet*. It is the *Nagateets* that provide training of wrestling, swordsmanship, and warfare to the newly inducted *Huddanga's* in any

> *"It takes twelve years for a sadhu to become a Nagateet"*

*Akhada*. They are also promoted to the ranks of *Mahants* and *Shri Mahants* in due course of time. A very few reach the rank of *Jagadguru*.

Planetary movements dictate that while the Kumbh Mela is held every three years in any of the four cities of Prayag, Hardwar, Ujjain, and Nashik, the *Ardh* (half) Kumbh Mela is held every six years at Hardwar and Allahabad (Prayag) while the *Purna* (complete) Kumbh Mela takes place every twelve years, at four places Prayag (Allahabad), Haridwar, Ujjain, and Nashik, based on planetary movements. Each site's celebration is based on a distinct set of astrological positions of the Sun, the Moon, and Jupiter, the holiest time occurring at the exact moment when these positions are fully occupied. In January 2007, over 60 million people made a pilgrimage to the city of Allahabad, making it the largest gathering in the world. The 2021 Kumbh Mela at Haridwar also attracted large congregations despite the pandemic.

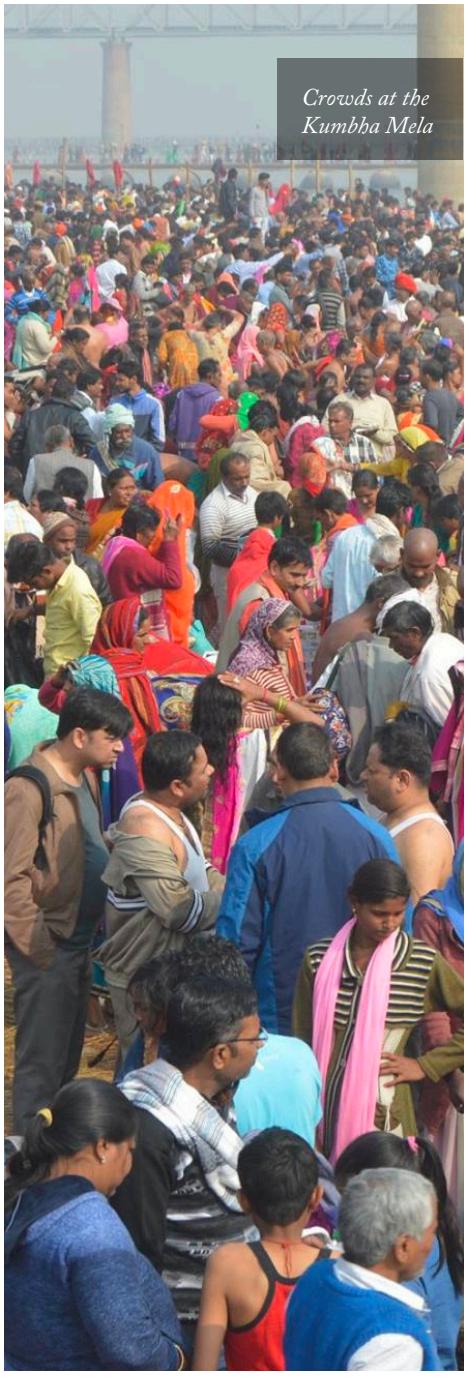
While the Kumbh Melas are similar in nature, each city has its unique flavour and spots that add to the experience. All four are historic, organic cities, and even as Prayag, Haridwar and Ujjain are picturesque, Nashik with its assorted cultural influences is a study in contrast. The Kumbh Mela at Haridwar has special significance, as Hindu mythology believes that Haridwar is the gateway to heaven. Rivers have always enjoyed a special status in the Hindu way of life, especially the river Ganga and its tributaries. Believed to be possessed of the ability to cleanse one's sins, the very mainstay of the Kumbh Mela is the holy dip or the *Shahi Snan* by the *sadhus*, perceived to be the wisest of all men.

In 1895, the celebrated English author Mark Twain attended the Kumbh Mela. So moved was he by what he saw that he wrote,

It is wonderful, the power of a faith like that, that can make multitudes upon multitudes of the old and weak and the young and frail enter without hesitation or complaint upon such incredible journeys and endure the resultant miseries without repining. It is done in love, or it is done in fear; I do not know which it is. No matter what the impulse is, the act born of it is beyond imagination, marvellous to our kind of people, the cold whites.

If this sounds a bit too romantic for modern ears, here's a description from The Atlantic Quartz Website to get an idea of how big it really is,

Imagine the entire population of Shanghai – about 23 million – camping on a 4 X 8 kilometre field. Add to that mass of humanity every last man, woman and child in New



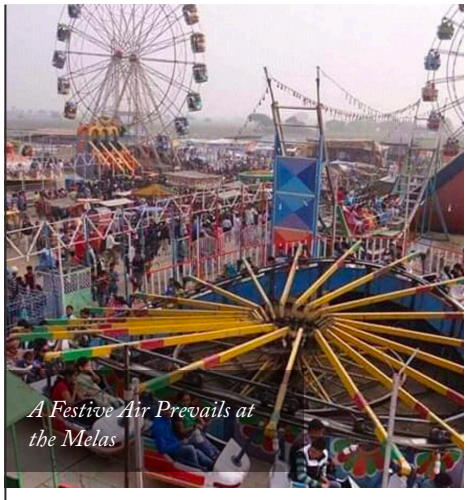
*Crowds at the Kumbha Mela*

*Bathing at Har ki Pairi*

York City and you're getting closer to the Kumbh's expected attendance. But you're still not quite there. The area of the mela is also on the rise: from 1,495.31 hectare and 11 sectors in 2001 to 1936.56 hectare and 14 sectors in 2013. That's about 4,784 acres of land – about the size of Madrid's famous Casa de Campo Park.

Despite the legend, the exact origin of the Kumbh Mela is difficult to pinpoint. Some people believe that the first written evidence of the Kumbha Mela can be found in the accounts of Chinese traveller, Hiuen Tsang or Xuanzang who visited India in 629–645 CE, during the reign of King Harshavardhana. He describes how Harshavardhana distributed goods and money generously at a gathering at Prayag. In the 8th century, Jagadguru Shankaracharya popularized the *mela* amongst the common people. With each passing year the fair began to garner more and more crowds. According to The Imperial Gazetteer of India, an outbreak of Cholera occurred at the 1892 *Mela* at Haridwar, which led to the rapid improvement of arrangement by the authorities and the formation of Haridwar Improvement Society, and in 1903 about 400,000 people attended the fair. Since then, it has gone from strength to strength, with 60 million people (about 1 per cent of all humanity) in attendance.

Rich and poor, urban, and rural, spiritual, and cultural, all are a part of this upsurge of devotion that offers anyone remotely observant, a chance to broaden their horizons.



*A Festive Air Prevails at the Melas*

# Dadri Mela

In Ballia, the Dadri Mela takes place on the banks of river Ganga. This is one of the prime cattle fairs of the country. Large crowds gather on the banks of river Ganga for the ceremonial dip in the holy river. People also come to Ballia to pay their respects to Dadar Muni, a disciple of the great sage, Maharishi Bhrigu.

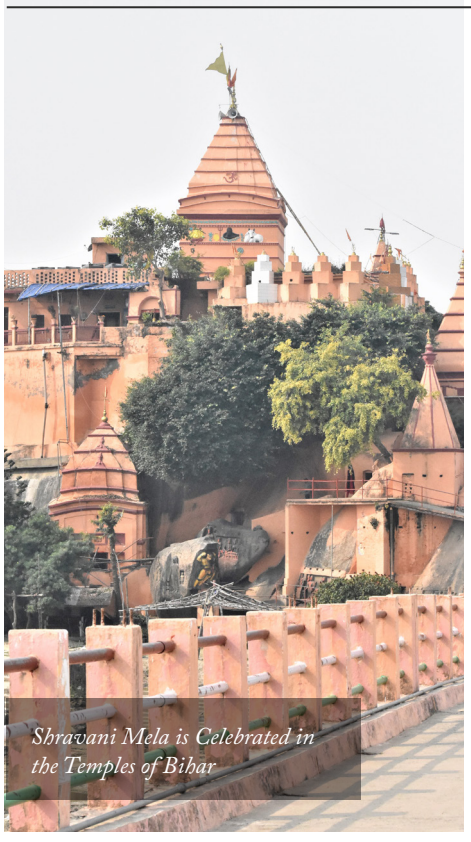
Ganga's compassion is so limitless that every day along the river is occasion for festivity. With the onset of Monsoon is celebrated Ganga Dashahra, to commemorate the descent of Ganga from the heavens. On this day, all rivers and water bodies transform into the sacred Ganga. On the tenth day of the light fortnight of *Jyeshtha* in Banaras, Dev Deepawali is observed from the eleventh day to the fifteenth day, or the *Purnima*, in the month of *Kartik*. This festival accords a rousing reception to the *devtas* upon their arrival after having vanquished the *asuras*, the demons.

*The Night Lighting at Varanasi Ghats Creates a Dramatic impact*

# Banaras Festivals

Banaras, the city, is always in festive mode. One of the remarkable celebrations here is the *Masane-ki-Holi*, the Holi of the cremation ghats. The *Dom Raja*, the community leader of those engaged in the duties of cremation, dominates the cremation proceedings here along the ghats, and close to the Holi festival, himself arrives at the ghats to play Holi with the dead who have been brought here for their last rites. He smears the dead with ash, dips his bare hands in the burning pyres and then begins the ecstatic Holi celebration, not with colours or petals, but the ash from the burning ghats!

Some festivals that are celebrated only along the banks of the Ganga include Yama Dvitiya, Nag Nathaiya, Budwa Mangal and the Ramnavami Shobha Yatra in boats. Banaras witnesses the reenactment of the Krishna story – *Nag Nathaiya*, where a young Krishna dives into the river and emerges triumphantly, standing on the hood of the demon snake, Kaliya, playing the flute.



*Shravani Mela is Celebrated in the Temples of Bihar*

# Shravani Mela

In the Shravani Mela in Bihar, Dak Bams, the eternal pilgrims that now also throng Har-Ki-Pairi at Haridwar, the pilgrimage having become popular in the Hindi heartland. Here, the holy water of the Ganga, considered more sacred than elsewhere because the river flows slightly northward, is carried to the Vaidyanath Temple at Deogarh, about 105 km on bare feet. Faith truly moves mountains!

Situated at the confluence of Ganga and Narayani Gandak, in a place called Shaligrami, ammonites or *shaligrams* (a naturally round river stone shaped like a *lingam*) are found here. Asia's largest livestock fair is held here on the day of Kartik Purnima. Historical records show the fair has been held since the 4th century.

*Elephants used to be Traded at Sonepur Cattle Fair*

# Sonepur Cattle Fair

A fair where one could once buy elephants in the *Hathi Bazar*! The Sonepur Fair, the cattle market held for two weeks in November, during Kartik Purnima, at the confluence of Gandhak and Ganga, was once the largest anywhere in the world and has been held perhaps since Vedic times. Ballia also hosts the Dadri Mela, a large cattle fair.

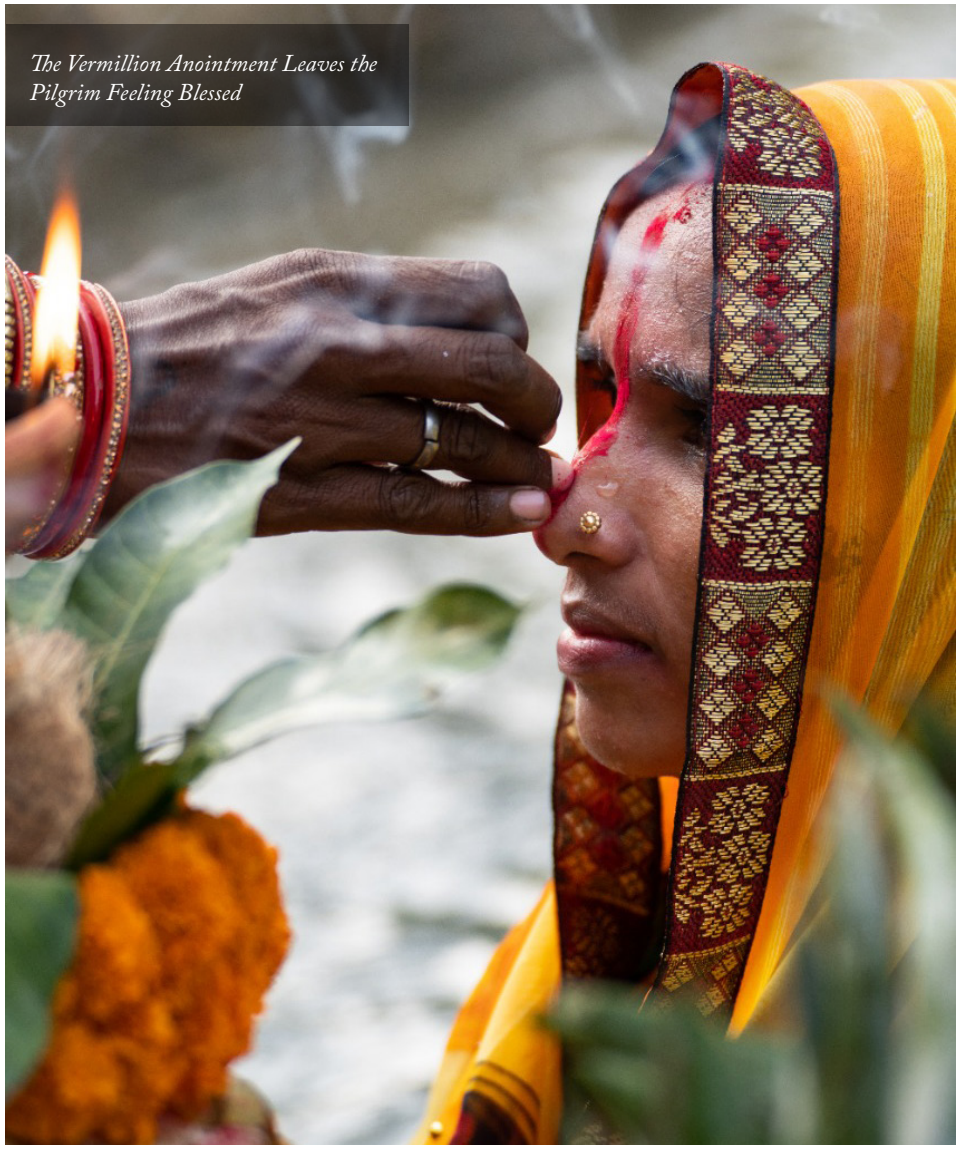
# Festivals *in* Bengal

Bengal observes several festivals based on Ganga, even in places far away from the Ganga. These include Kachban in Cooch Behar where the river Naya is celebrated as Ganga. Makarsnan is held at Namkhana in 24-Pargannas. In Dostpur in the same district, and in Gohilla, Malda, festivals celebrate the river. At the village of Amarkundu, an annual celebration is held for Ganga and the Sun God known as *Gangaditya* on the last Sunday of *Shravana*. The making of Devi images for Durga Puja is a constant task for the sculptors of Kumartully. For the craftsmen, the cycle does not end with the Durga Puja Festival. There is Lakshmi, then Kali, then Jagdhatri and so on.

At the Ganga Mela at Sagar Island where the Ganga meets the Bay of Bengal, is situated the Kapil Muni Temple. The mela, held at Uttarayan, is celebrated as *Devayan*, the path of the gods, the path of light, the path of eternity. Thus, a bath in Ganga Sagar is supposed to liberate.

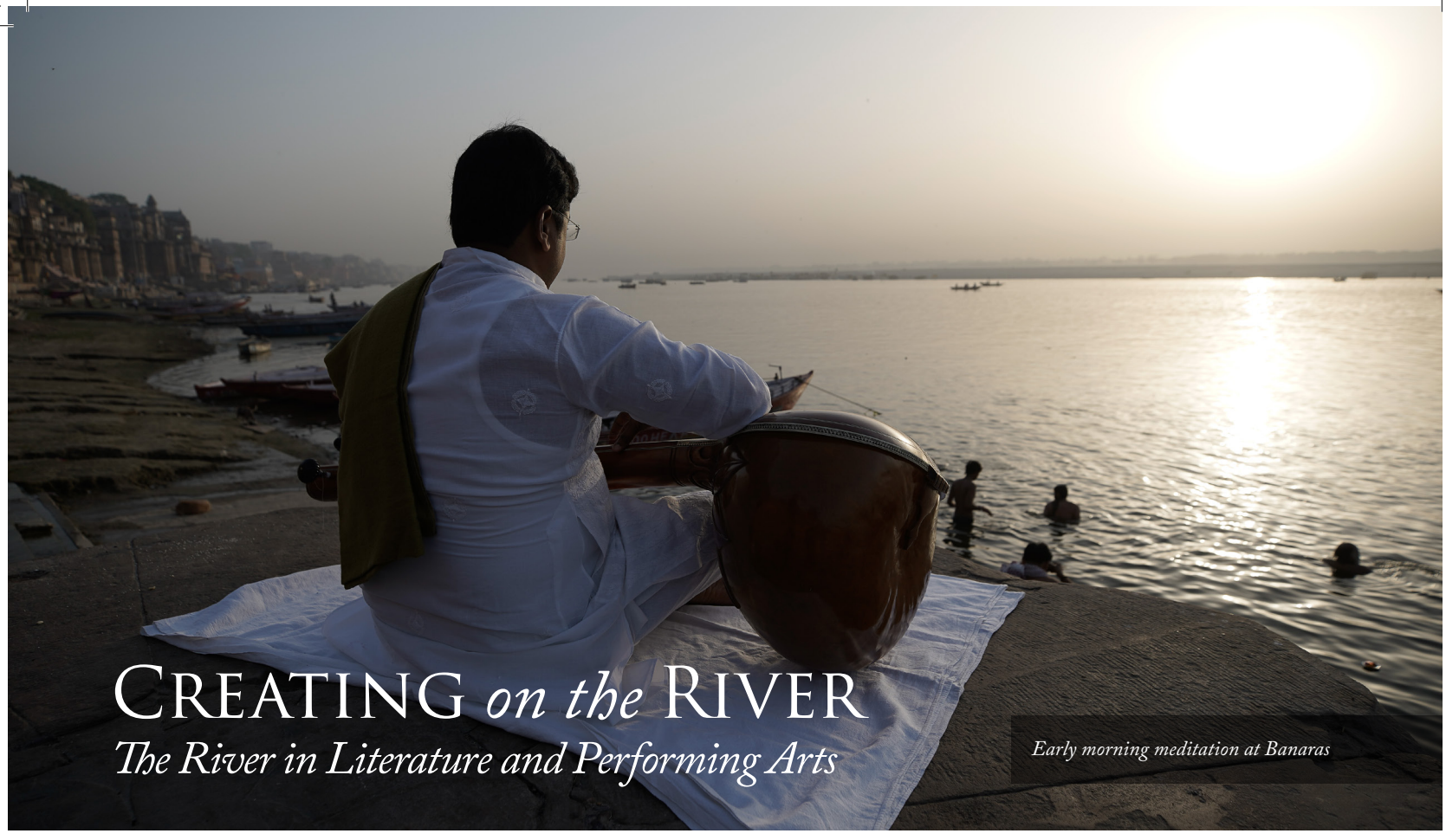
In the months of April-May (*Baishakh*), pubescent girls prepare *lingams* from Ganga clay and perform Shiva Puja. Prospective brides praise Ganga and Durga, the two consorts of Shiva. In Bengal, *Gangavatarana*, the descent of Ganga, is performed as a ritual marriage dance. In the three days of the boys' *Upanayana Samskara*, the child is fed with only leavened bread and Ganga waters.

It would not be out of place to mention the traditional boat race (*Baich Khela*) over 5 days in five different places held in the Sundarbans since the last two centuries. The festival is held in September in 75 feet long boats with 22 rowmen each.



*The Vermillion Anointment Leaves the Pilgrim Feeling Blessed*

*Banks of Ganga are venues for music festivals as well*



# CREATING *on the* RIVER

## *The River in Literature and Performing Arts*

*Early morning meditation at Banaras*

Performative arts are at the core of every society's existence. For a river that is so intimately associated with Shiva *Nataraja*, the lord of the performing arts, Ganga is bound to find expression in a myriad forms of fine art. The river has inspired many artistes who lived on its banks, to create art works that have become immortal. Consider, for instance, Kabir, whose work still finds so many expressions in classical, semi-classical, contemporary, even Bollywood and Pop Music. Recently, I met a group of young boys grooving to the tune of the song *Haman hai Ishqe Mastana*, by the roadside, and took the opportunity to quiz them about the poet. They were blissfully ignorant of the fact that the song they were singing had indeed been penned by Kabir.

The river forges a strong bond with performers and artistes, their creative pursuits deriving sustenance from it. Several years ago, the Shehnai Maestro, Ustad Bismillah Khan was requested by a student to start a Shehnai school in the USA. "Yes, I would definitely come and live there," said the master, but quickly added a caveat, "bring the Ganga of Banaras to your city, and I shall come."

Ganga represents India's message of faith, hope, culture, and sanity. She is undoubtedly the centre of social and religious tradition in the Indian sub-continent. The river is also a source of livelihood for millions since times immemorial. The very special faith and respect for the Ganga in India are as old as Indian culture itself. These are amply reflected in such ancient Indian scriptures as Vedas, Puranas, Mahabharata, Ramayana, and several others, that find expression in the classical arts of India. In fact, respect for Ganga is a part of the Indian identity and a hallmark of Indian culture.

The sacred views and sounds of the river, in whatever medium the artiste chooses to express, even in an age of commercialized art, are a spiritual quest and engender a mythical, mystical understanding. Immersing oneself in meditation or self-reflection on Ganga's banks, surrounded by the sacred waters of the river that makes life flow, one feels anchored. The use of images of the river and their interpretation through an ecological-spiritual viewing somehow purifies our soul. The poetics of the river in the Indian context are linked to the sacred and religious values of the Indian tradition.

*Singing the compositions of Vidyapati in Patna*

*The Beatles flanked by Mahesh Yogi, graffiti at the ashram in Rishikesh*

# The West Arrives

Probably it is this poetics, the innate beauty that so attracted the Beatles to the divine music of India. It began in 1965 with the shooting of a film called Help! In London's Twickenham Studios. The film was an unabashedly mindless, slapstick, comedy, and sought to caricature everything Indian. Featuring the Beatles, it portrayed India through a grotesquely slanting prism – showing bloodthirsty religious cults and crazy yogis. Clearly, the western view of India of the time, was meant to offend all Indians and have fun at their expense. Ironically, it turned out to be the first encounter with Indian culture for the boys from Liverpool, who would soon find themselves on the banks of the Ganga, trying to combat their inner demons. It was during the shooting of this film that George Harrison, first saw and heard the Sitar being played in the background. So fascinated was he with the sound and the instrument that it would become his lifelong passion to learn to play it as a disciple of Pandit Ravi Shankar. This passion for the Sitar inspired him and his band to come to Rishikesh. Usually described as the Yoga capital of the world,

*Artistes come from afar to be inspired by Ma Ganga*

Rishikesh is immensely popular as a place of pilgrimage and as a spiritual retreat. For years, not just the Beatles, but millions have made a beeline for Rishikesh, looking for that one thing beyond money, fame, success, sex, drugs, that can count for true happiness!

Time spent by the Beatles near the Ganga did not transform them into yogis, but the most popular music performers ever, did feel grounded enough to compose over twenty of their most iconic songs from the White Album, Abbey Road and Let It Be, here, in this retreat in the forest. Yes, Let It Be, perhaps that is the message of Ganga.

Another testament to music along the Ganga is a little shack called Jungle Vibes, that many years after the Beatles, continues to vibe with the divine music of the flowing waters. This is where a legacy of crafting didgeridoos, the aboriginal Australian instrument continues. A didgeridoo is a simple, hollow, log-based wind instrument that is believed to have come into existence some 1500 years ago. The instrument produces a deep, sonorous, meditative sound, perhaps the sound of Om?

Well, whatever the sound, what we hear at Jungle Vibes, the studio established by Mukesh Dhiman, who made digeridoos after having been taught the art by an Australian pilgrim in 1980, is divine music. Over the years, Jungle Vibes has become a Mecca for seekers of pure sound. A very rustic space, the studio serves the purpose of a shop as well as the workshop, where volunteers create their own sounds and instruments.

*Early morning invocations at Kashi*

# Kashi & Culture

Banaras, one of the oldest cities known to humanity, has been a major centre for the performing arts where many forms flourished. In fact, very close to the Kabir Math, in the narrow by lanes are the homes of legends of Indian music and dance, gurus such as Sidheshwari Devi, Kishan Maharaj, Sitara Devi, Bismillah Khan, Birju Maharaj, Rajan-Sajan Mishra, Channulal Mishra, Girija Devi and so many more.

In classical dance forms as in Hindustani Classical Music, Banaras patronized these arts, and a distinct Banaras Gharana has emerged. Kathak is a blend of dance, music, and drama; a blend of cultures; history and modernity; eloquence and charisma. Roots of Kathak have spread from the ancient Sanskrit text Natya Shastra, written by Bharata Muni.

The word kathak itself comes from *Katha*, which means story. Kathak, therefore, is the art of storytelling through amalgamation of dance (*nritya*), music (*sangeet*), and drama (*abhinaya*). Banaras Gharana was developed by renowned Kathak dancer Janakiprasad. There are several differences that make this *Gharana* stand apart from the others. *Thaat*, a piece of performance, and *Tatkaar* or footwork performed under the Banaras Gharana are unique. The *chakkars* or pirouettes are minimal. The uniqueness of Kathak Banaras Gharana lies in the artists taking *chakkars* from both right and left with equal poise and confidence. The way a solo artist exquisitely adorns the entire stage and yet maintains the stance at the *sam*, the first beat of a *taal,* is phenomenal. The *natwari* or the dance *bols*, which are the specialty of Banaras Gharana are employed to portray the stories or *lilas* of Lord Krishna.

Likewise for classical music, where several *gharanas* have emerged in the region, the foremost being Banaras. Renowned flautist Pandit Hariprasad Chaurasia, born at Allahabad was initially trained as a wrestler in a traditional *akhada*. He learnt music surreptitiously and later moved to Banaras to improve his art under Bholanath Parasanna.

***"Renowned flautist Pandit Hariprasad Chaurasia, born at Allahabad was initially trained as a wrestler in a traditional akhada"***

*Artistes like Parvathy Baul represent the ecstasy of love that nature evokes*

# *The* ECSTASY *of* LOVE

Ganga's significant presence in dance choreography and music is on account of her importance in literature. For instance, the renowned second century Sanskrit poet Kalidasa has lauded Ganga in almost all his works, especially Raghuvansha, Meghaduta and Kumarasambhava. In sculpture too, from where most Indian classical dance forms have evolved, she begins to appear from the second century. Several Satavahana and Kushana sculptures, both from the second century CE are found representing Ganga in her nadimatrika manifestations.

In Bengal, where the Ganga finally meets the oceans, amalgamating wisdom from various sources ranging from the Vedas and the Puranas as well as all other Bhakti Movements, several religious sects emerged. Notable among them were *Baul, Neda, Darbesh, Sain, Aul, Saddhini Panthi, Sahajia, Khusi Biswasi, Radha Shyami, Ramsadhaniya, Jagabandhu Bhajaniya, Dadupanthi, Ruidasi, Senpanthi, Ramsanchi, MeeraRai, Bilwal Bhakta, Karta Bhaja, Gurudasi Vaishnam, Karan Vaishnav, Gop Vaishnav, Harivyasi, Kishori Bhajani* etc.

Among these, the *Bauls* are an inextricable part of Bengal's culture. Their wandering lifestyle mirrors their songs. Through their songs, the *Bauls* give vent to their aspirations and philosophy. The *Baul* philosophy extols faith in humanity and values it above all other religions or philosophies.

Nobel laureate Rabindranath Tagore, the versatile poet, and a great thinker felt the essence of truth and *moksha* in *Baul* philosophy. Tagore was so impressed by the all-embracing aspects of *Baul* philosophy, that he often referred to himself as Rabindra *Baul*. Like the *Bauls* or *Faqirs*, he not only considered himself a singer, but also wandering recluse in search of the ultimate truth. The rites and rituals of the *Bauls* and *faqirs* are mysterious and philosophical and deeply connect with the Ganga and her flow. The river finds metaphorical interpretation in many of their songs. As the *Baul* song penned by the poet Dombipada goes,

*The boat sails on*
*Between the Ganga and Jumna,*
*The lady brings her children*
*To the other shore.*
*Steer my boat,*
*Oh, outcaste woman,*
*While time is far off in the sky.*

The song signifies that the body is one's vessel, the *sadhaka* or the seeker must steer toward the farther shore of understanding through the storms of his own passion. The only mariner to guide him through this tempest is Realization. As Lalan Shah (1774-1890), one of the greatest *Baul* poets, sings,

*Like a small fish he is playing in the water.*
*He encompasses the world.*
*But you find him only*

*In the mirror of your understanding.*
*He swims within us, we who are like the Ganges.*
*When the water dries,*
*The fish will fly.*
*Man is as deep as the Ganges.*
*Only love can enter there.*
*Lalan says, "I drowned to reach the depths."*

Much like the *Baul faqirs*, Ganga as a river knows no discrimination. Anyone that comes to her with reverence receives only abundance from her. Dr. Rahi Masoom Raza, the eminent author of the popular TV series Mahabharat, initially declined to pen the script when requested by the well-known film maker B.R. Chopra. Media got wind of the news and published it. Chopra received several letters questioning his decision of choosing a Muslim to write the script of a Hindu epic. Chopra forwarded all of them to Raza. Upon reading the letters, Raza, who hailed from Ghazipur, immediately wrote back to Chopra, assuring him that he need not look for another script writer. "Only I could do it since I am the original *Ganga putra* (son of Ganga)!" he insisted. The TV series written by him, went on to create television history, and acquired cult status across India. He would receive thousands of letters of praise. Soon, his room was full of them. With these he also received some hate mail. He would often comment that the small stack of hate mail as compared to the room full of fan mail, filled him with hope for the country.

*Kolkata, a street painting from the Bengal School*

# SHREE
## *River of Abundance*

Undoubtedly, Ganga has found ample representation in devotional music. On the ghats of India's most sacred spots, wherever one may be – Haridwar, Banaras, Patna or Ganga Sagar, the river is worshipped every day with an invocation – and besides the crowds and the loud chanting, the mesmerising movements of the priests with their lamps, one thing to most look forward to is the recitation of *Shree Suktam*, an ancient Rig Vedic chant, sung in a precisely prescribed intonation, in praise of the female force that grants sustenance and abundance.

Probably the *Shree Ragas* find their genesis from here. In fact, most *ragas* in Indian music systems seek to convey deep emotions that one might otherwise find difficult to express and to turn the gaze inwards. What can be said with a fair degree of certainty is that Indian music, Hindustani or Carnatic, or the semi-classical genre invokes images and feelings conveying related kinetic qualities. Great music is generally associated with *rasa*, the evocative qualities of the sun, a river, a yearning for something or looking up at someone. Often, this river is Ganga. As a river it has inspired musicians from across India to compose and sing paeans to its life-giving properties. Not for nothing is Ganga described as *Rasmayi Devi*, the goddess that is the repository of rasa.

# Longing & Merging

One of the offshoots of India's great classical music tradition is the singing of *Kajri*. *Kajri*, derived from the Awadhi *kajra* or kohl, is a genre of semi-classical singing originating from the banks of the Ganga in Uttar Pradesh. Though the oeuvre is generally believed to have come from Banaras, the genre in fact originated in Mirzapur. The repertoire consists of songs of separation and longing, and season specific songs such as *Chaiti, Hori, Sawani* performed in homes and social gatherings in Banaras, Mirzapur, Mathura, Prayagraj and Hardoi. Even though these songs harp on a repetitive theme, of the longing of a maiden for her lover, the burden of separation looming like the dark monsoon cloud overhead in the sweltering summer, the singing always stirs the passions among the audience. Rasoolan Bai, Siddheshwari Devi, Begum Akhtar, Shobha Gurtu, Girija Devi, Channulal Mishra, Bismillah Khan, Sharada Sinha and Rajan-Sajan Mishra are some of the exponents that have rendered the craft immortal.

Further downriver, the Bhojpuri belt has a rich repertoire of folk songs that accompany every life event and chore like the grinding of grains, sowing or weeding. These folk songs are referred to as *jatsaari, ropani, sohani, jhumar* also including *kajri*, and remain open articulations by womenfolk of their tribulations. For instance, the *jatsaari* songs relate to grinding of grain, a task that is largely mechanised now. The songs, however, are alive in women's memories. One popular song refers to how mothers-in-law force their newly wed daughters-in-law to grind large quantities of grain. While certain songs are themed on longing and pain, others reflect life processes such as birth and wedding. In this sense, these songs perform a range of femininities.

The Vidyapati Tehsil of Samastipur, named after the famous poet Vidyapati (1352–1448), is historically significant for literature. Vidyapatidham was the great poet's *Nirvan Bhoomi*, and is regarded significant by the literary community, in addition to its religious significance relating to Shiva worship. Apart from being a devout follower of Lord Shiva, Ma-

*Boatman's songs at dusk are usually about separation and longing*

hakavi Vidyapati also wrote *Shakti* poems about Durga, Kali, Ganga, and Gauri. He was a Sanskrit poet, writer, and polyglot who was also known as *Maithil Kavi Kokil* or the Maithil poet cuckoo. Vidyapati's influence extended beyond Maithili and Sanskrit literature to other eastern literary traditions as well. His impact on the development of the time's language, Prakrit-derived late *Abhatta*, has been described as "analogous to that of Dante in Italy and Chaucer in England." The Mahakavi is said to have expressed his desire to visit Mother Ganga before passing away, and he was taken to the river in a palanquin to fulfil his wish. When he arrived at Vidyapatidham, as it is now known, he sat in meditation two and a half *kos* (3.6 km) away from the river, saying that Ganga herself would come to meet him. A rising stream is said to have reached him from the river. Vidyapatidham is now one of the most visited places in Samastipur due to this event. The Shiva temples in Vidyapati Nagar are also very well-known.

In North India, especially in the Gangetic plains, in what is now Uttarakhand, Uttar Pradesh and Bihar, we find songs known as *Barahmasa*. It is a 12-month cycle in poetry, expressing the loneliness and longing of a woman in a village, for a husband who is travelling far away. "The *Bedu* berry ripens all year long, but the *Kafal* berry only ripens in spring," says a more recent and popular Kumaoni song. The key theme is *viraha* or separation. The genre is described as *khuded geet*, or songs of separation, in the Himalaya. In many songs, the husband is referred to as *jogi*, which is a way of saying *yogi*, meaning the hermit. By doing so she hopes he will keep his promise – stay faithful to her while away, and be protected from harm by the power of that celibacy. These songs have been around for over 500 years, inspiring miniature paintings also. They are an indicator of a military-labour market that has long been forgotten.

When the Turkish invasions took place in India around 800 years ago, the first rulers of India were the Mamluks. They were slaves to the crown. In Central Asia, at the time, people voluntarily accepted slavery of powerful warlords in exchange for patronage. The sultans trusted the Mamluks more than family. Aibak, Altamash, Balban, who were the earliest Delhi Sultans were Mamluks. Malik Kafur, who invaded South India, was a

*Creating by the Ganga*

slave of Allauddin Khilji. This practice became even more popular after the rise of Islam because Islam forbade Muslims from enslaving Muslims. So many Muslim warlords enslaved 'infidels' from East Europe, such as the famous *Janessair* (those who sacrifice lives) of the Ottomans, who were not allowed to marry, and were part of the royal household from the 14th to the 19th century.

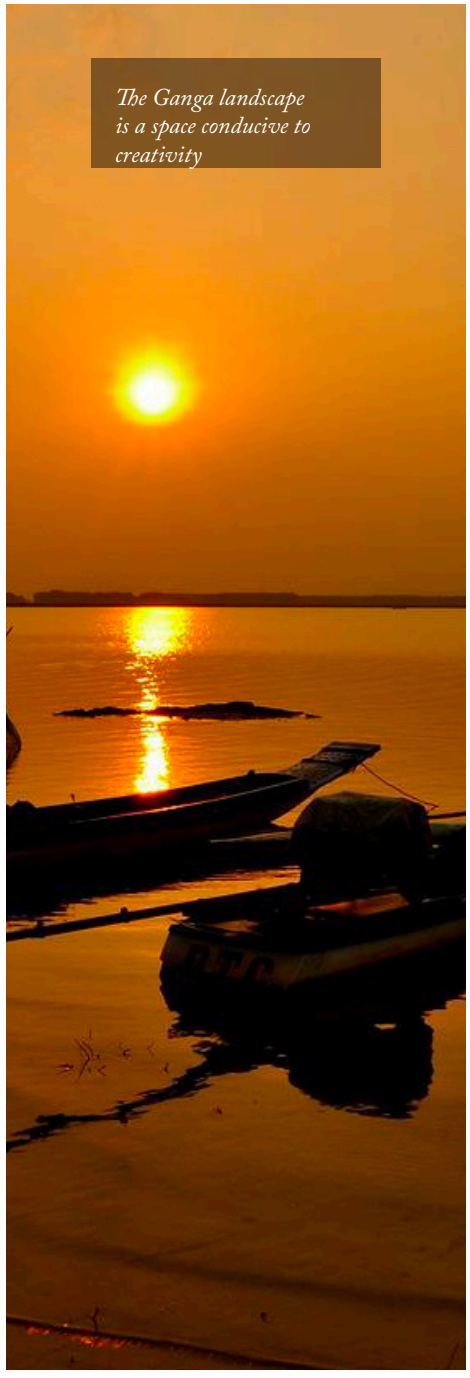
Amongst Mongols who spread terror across the Islamic world and plundered Baghdad in the 13th century, the concept of *naukar-chakar* emerged. A *naukar* was a paid soldier and a *chakar* was a paid courtier, who would enable the Mongol warlord to be successful in battle. These ideas came to India in the pre-Mughal era. As long as military labour was easily available from Persia, Afghanistan and Central Asia, nobody looked at the local talent. The Delhi Sultanate preferred people from the west of the Indus and did not trust the natives. They kept their distance from the locals. This changed as there was a drying out of the talent pool coming to India following the invasion of Timur in the 14th century. The Delhi Sultanate began waning in power. There is the emergence of other Sultanates such as those of Deccan, Gujarat, Jaunpur, and Bengal. They started hiring locals, and the idea of the military-labour market emerged. This means the peasants in these rural agricultural countries would become soldiers in exchange for money. The soldiers who left home wanted to promise their wives that they would be chaste while away. Therefore, they smeared their body with ash, and carried weapons in their hands. They became mendicants or hermits, or *jogis* – albeit temporarily. They would return home to be householders, with a fortune earned through the active military service they provided to the kings. We often find these themes in North Indian ballads.

Those who were permanent hermit-warriors formed the *akharas*, or military academies, and served many local kings. They worshipped Hanuman. This is the period when folklore of Hanuman's role in helping Ram became popular and his powers were linked to celibacy or *brahmacharya*. This is when Adbhuta Ramayana was composed, telling the story of Hanuman who defeats Mahiravan and rescues the kidnapped Ram and Lakshman. This is when the Hanuman Chalisa was composed, explaining the powers of this mighty god smeared

red, gold and saffron. He did not belong to the traditional caste hierarchy. Anyone could worship Hanuman.

Traditionally, in India, there is the concept of the *yogi* who withdraws from the world and the *bhogi* who consumes and enjoys the world. With this concept of the hermit-lover, the *yogi-bhogi*, we find someone who is temporarily a *yogi*, when he is a migrant labourer, but on returning home he is a *bhogi*. In many ways he is like Shiva, who is a hermit when separated from his wife, and householder when with his wife. It reminds us that these compartments of *yogi* and *bhogi* were never watertight. The *Barahmasa* songs are sung by women for their husbands who are *yogis,* when they leave the village to travel around the country. It has been postulated that the idea of a cash economy emerged to serve the military labour market. Kings preferred to pay the soldiers money, rather than reward them with land and cattle, which was the old, feudal way. This created the mercenary system, which owed no loyalty to any king or clan. The *jogi* belonged to no one and served everyone.

At one time, these men fought for various rulers of India, even serving the Company. Later, some of the earliest revolutionaries emerged from these groups. The songs resonate even today as young men from the Gangetic plains travel in search of urban employment. Nearly half of India's population lives in the Gangetic plains as many there travel to far off lands for their livelihood. The women continue to hope their men will remain *jogis* in the outer world and return soon to be *bhogis*.



*The Ganga landscape is a space conducive to creativity*

*The courtyard at Bhartendu Harishchandra's home in Banaras*

# Writer's River

In the field of literature too, the banks of Ganga have given several gems to India. Bharatendu Harishchandra is considered an influential example of traditionalist writing in north India, typifying continuity with received tradition and self-conscious participation with the modern world. Born in Banaras, he was typical of those Indian authors who engaged with Western institutions and learning, and used new media, especiallypublications to shape public opinion. His works, including plays, poetry and immortal couplets, with works such as Andher Nagri and Bharat Durdasha, shook the masses out of their stupor.

Another figure from Banaras is Munshi Premchand, considered the first Hindi author whose writings prominently featured realism. His novels described problems of the poor and the urban middle-class. His works depicted a rationalistic outlook, which views religious dogmatism as something that allows powerful hypocrites to exploit the weak. He used literature for arousing public awareness about national and social issues and often wrote about topics related to corruption, child widowhood, prostitution, feudal system, poverty, colonialism and on the independence movement. His greatest works include Godaan, Karmabhumi, Gaban and Rangabhoomi.

Born in 1907 in Farrukhabad, Mahadevi Verma emerged as a strong voice in Hindi literature. She studied and lived in Allahabad, and some of her greatest works included Agnirekha, Deepshika and Chintan Ke Kshan.

Bengal has also given writers that are legion. Every time we talk about the greatest Bengali writers, Rabindra Nath Tagore's name will be the first mentioned. His name is known to every Indian, not only because of his popular novels, but as the composer of our national anthem. He is also the writer of Bangladesh's national anthem *Amar Shonar Bangla*. The national anthem of Sri Lanka was also deeply inspired by his words and ideas, and composed by his student. Tagore contributed immensely to the independence of the country and the people. He was not only a writer but also a painter and a social reformer. He altered Bengali literature with his modern thinking during the late 19th century. In the year 1913, he became the first non-European writer to receive the Nobel Prize for Literature. Founder of Vishwa Bharati Uni-

versity, he is often addressed as the Bard of Bengal. Some of his notable works are Gitanjali, Gora, and Ghare Baire.

A novelist, poet, and inspiring activist during the Independence Movement, Bankim Chandra Chatterjee is known as the Emperor of Bengali Literature (*Sahitya Samrat*). Chatterjee was the composer of the venerated song Vande Mataram, a song that was composed on the banks of Ganga, at Mallik Ghat in Chinsurah. Some of his notable works are Ananda Math, Bishabriksha, Devi Chaudhurani, Kapalkundala, and Durgeshnandini.

Mahashweta Devi, is a writer and activist who worked for the empowerment and the rights of tribal people of not only West Bengal but also of other states such as Madhya Pradesh, Chhattisgarh, and Bihar. Some of her remarkable works are Aranyer Adhikar, Titu Mir, and Hajar Churashir Maa.

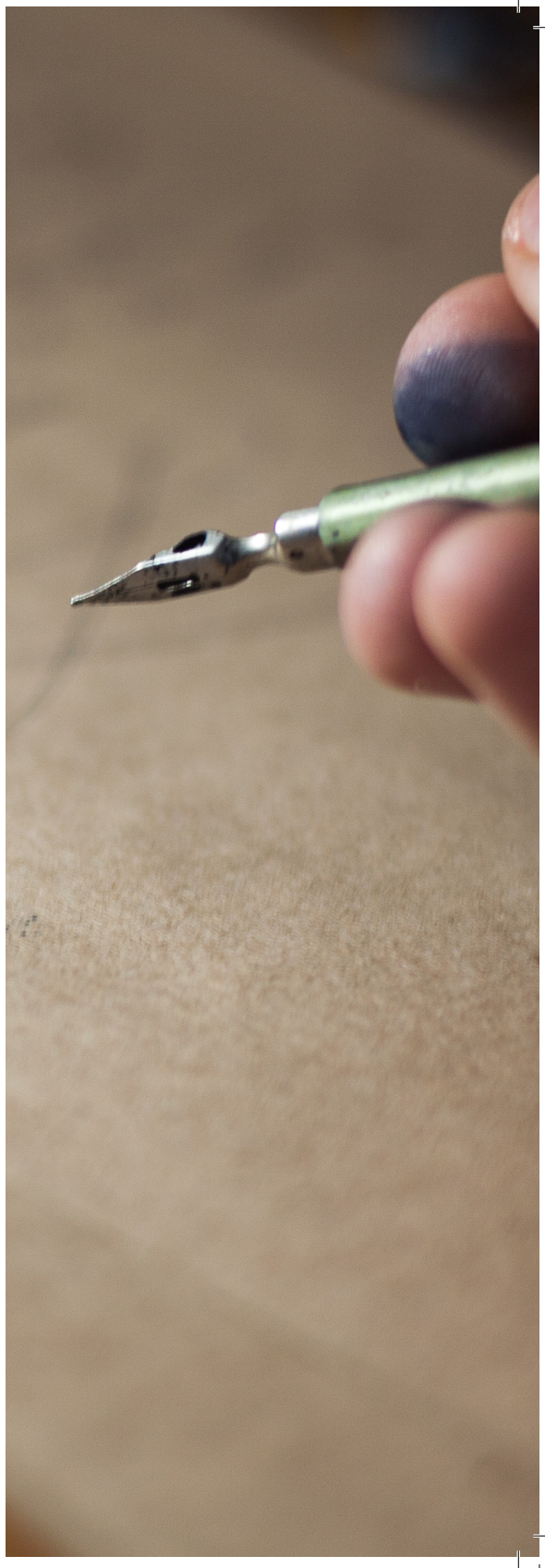
***'Tagore not only wrote our national anthem, but also that of Bangladesh. His words deeply inspired Sri Lanka's national anthem too."***

Sarat Chandra is known for famous novels based on the tragedy, struggle, lifestyle of the people residing in villages, and social issues that prevailed during his lifetime. Some of his notable works are Devdas, Parineeta, Srikanta, Choritrohin, and Pother Dabi.

A prominent feminist writer in Bengali, Ashapurna Devi, was celebrated at the early age of thirteen when her first poem Bairer Dak (The Call from the Outside) was published. Some of her notable works are Bakul Katha, Prothom Protishruti, and Subarnolata, all three are about the endless struggle of women for their rights.

Michael Madhusudan Dutt was the first major poet of modern Bengali literature. His popular work Meghnad Badh Kavya is a tragic novel based on the famous Ramayana, centring on a gallant figure named Indrajit, Ravan's son. His themes were grief and ache of love as spoken by women.

Ganga has given to this land, legions of creators and only a handful have been listed above. These people brought about social transformations through the power of their pen. Many like Kazi Nazrul Islam suffered incarcerations for their bold views. His prison cell, in the Dutch Prison of Chinsurah, on the banks of the Ganga, where he composed many immortal songs, can still be seen.



# Crafting a Legacy

## *The Hands that Create*

*Weaving carpets at Bhadohi*

Bengal's strategic location in the Ganga basin helped it achieve prosperity through trade and commerce earlier than most parts of India. The Ganga River system provided easy communication for internal trade and Bengal's location on the Bay of Bengal offered it the opportunity of participating in seaborne trade and commerce, the tradition of which seems to have been built up from as early as the second millennium BCE. In the early period of history, Bengal was a territory that encompassed the present areas of Bangladesh and West Bengal, as well as parts of Bihar and Odisha in India. Its location between the Middle Ganga Plains and the Brahmaputra Valley provided regular access to the Ganga basin in the west and the north-eastern parts of India. Geography and human activities in this deltaic area of the Ganga were largely shaped by the water regime of this region. This is true for the Samudra-Himachala region, stretching from the Himalayas to the sea, in the entire Indian subcontinent. The Ganga Delta opening out to the Bay of Bengal made the region the only conduit of the landlocked Ganga Valley to the sea. These geographical features considerably influenced movements of men and merchandise in early Bengal. It is important to note that complex economic life in Bengal, including sedentary agriculture, growing trade, urban development and especially the crafts industry did not emerge prior to the fourth century BCE, or before the emergence of the Mauryan Empire.

With passage of time, as trade grew further, owing to navigable passages provided by the Ganga waterways, craft industries grew in the region at an unprecedented pace. Aside from the appearance on temple doorways, Ganga figures began to appear

as a motif in minor crafts and isolated pieces of sculpture, especially in the Gupta period. From Jaipur, Rajasthan, come several Gupta drinking vessels with handles fashioned in the shape of a goddess. We have already seen Ganga on the Gupta period coins. A 12th century sculpture in the Varendra Research Museum in Rajshahi, Bangladesh, found in the Deopara Region, reflects the eminent position of Ganga in the life and wealth of the people of Bengal as a main source of water, for nourishment of the fields and as a source of transport. Ganga's bounty is reflected beyond measure in the statue, through the jeweled tiara, the necklace falling over the ample breasts, and the elaborate ornament of the girdle. By its sheer size of five feet seven inches, and its fineness of line and proportion, this image exudes feminine grace and benediction.

The flowing waters of the Ganga and the myriad vegetation around its banks have supported thousands of craft traditions. While many have been documented and still find ready markets as items of daily use or decoration, others languish in the shadows. From the timbered and exquisitely carved chalets in the Gangotri Valley to the grand Terracotta temples of Bengal, the crafts' wealth along the Ganga is immense, and owing to paucity of space, we can acknowledge but only a few here.

*A wool weaver in Uttarkashi*

## *In the* Himalayas

The Jads of Gangotri Valley have traditionally been traders in wool. As large flocks of sheep crossed over from Kinnaur on their way to Tibet, the Jad women would transform this wool into distinctive coats and rugs. The tradition lives on the village of Bagori in the Harsil Valley, and the other Jad villages like Dunda, even though the trade across the border has depleted.

In the valleys of the Alaknanda and Bhagirathi grows the versatile grass, the thin Himalayan Bamboo locally known as *Ringal*. *Ringal* is a sturdy grass that is critical to Himalayan living as it can be woven into baskets for long storage, as well as large baskets that can be slung on shoulders and carried up steep slopes. This craft provides livelihood to several communities in the valleys.

People flock to pilgrimage sites along the Ganga and purchase of craft objects like musical instruments, idols and *rudrakshas* are an essential element of these trips. This sustains a small but lucrative market for crafts around the towns of Rishikesh and Hardwar.

*Making rose perfume the traditional way in Kannauj*

# Crafting *the* Plains

In the Bulandshahar District lies the town of Khurja, which is now synonymous with pottery. The patterns, paint and techniques are Indo-Persian in character, and their pottery is very popular.

The region around Mirzapur, Bhadohi, is prominent for its hand-knotted carpet industry. These carpets are manufactured on a vertical wooden loom. Thick cotton and wool yarns are used in the warp ends while wool is used in the width direction. These looms are equipped with a double layer of warp ends, separator rods and platforms. Designs depicting flowers, animals, gardens, trees and trellises are used in various hues. The production process commences with the selection of yarns which are generally procured globally. In fact, use of Alpaca wool was also observed. It is believed that some weavers who were part of the marauding Turkish armies decided to settle in the region and gave rise to this brisk business. India is regarded as one of the six major carpet manufacturers and exporters in the international market. A major importer of the hand-crafted carpets is Germany. The agriculture and trade of the region are dependent on this industry. Mirzapur-Bhadohi are the largest hand-made carpet weaving cluster in the industry. Bhadohi employs twenty-two lakh rural artisans. The different types of carpets commonly crafted in the district are cotton dhurrie, Chhapra Mir carpets, Loribaft and Indo Gabbeh.

***"Amongst several other highly prized perfumes, the craftsmen of Kannauj could also capture the smell of rain on dry earth, the fabled petrichor"***

Uttar Pradesh's Kannauj lies a dusty four-hour drive east of the Taj Mahal, the white-marbled wonder built by the Mughal emperor Shah Jahan in memory of his third and favourite wife. Empress Mumtaz Mahal died in 1631 during child birth. The Taj is Shah Jahan's grand paean to lost love. But he also mourned his queen in much more personal ways. For one thing, Shah Jahan never again wore perfume. Fragrant oils – known in India as *attars* – had been one of the couple's great shared passions. Then and now, Kannauj was the place to fetch the fine scents – jasmine oils, rose waters, the roots of grasses called vetiver or *khus*, with smell that acts as a coolant. Amongst several other highly prized perfumes, the craftsmen of Kannauj could also capture the smell of rain on dry earth, the fabled petrichor. Exactly when *attar*-making began there, no one is certain; archaeologists have unearthed clay distillation pots dating back thousands of

years to the ancient Harappan Civilization of the Indus Valley.

Kannauj is still a hub of historic perfumeries that draw much of the town to the pursuit. Most people here are connected to fragrance making in one way or another, from sinewy craftsmen who steam petals over wood fires in hulking copper pots to mothers who roll incense sticks in the shade while their toddlers nap on colourful mats nearby. Perfumers here use steam distillation to produce natural fragrances. The distilleries have no electricity or machines and rely on the expertise of craftsmen. About 80% of India's traditional distilleries have closed in the last 20 years, even though there are several interdependent yet lesser-known industries such as the making of glass bottles called *Ittar-Daan*, Brass inlay work, *Agarbatti* or incense sticks, that still depend on the perfumeries here. Traditional leather *Kuppis*, urns used for storage of the perfumes is a trade already breathing its last. Mohammed Mustaqim is perhaps the last of the surviving *Kuppi* makers.

The Dulhipur Tehsil in Chandauli District is home to the intricate and labour-intensive crafts of *Zari* and *Zardozi*. They supplement the very well recognized silk brocade weaving traditions from Banaras. Banaras is a hub of wooden toys, and the well-known silk brocade. Weaving of gold thread into silk has been perfected here. In Ghazipur, wall hangings representing age-old motifs of sailing ships and landscapes are made.

*Zari and Zardozi brocade from Farrukhabad and Banaras are alluring*

# Colours *of* Rejuvenation

The state of Bihar has a rich historical past. The crafts of Bihar reflect the influence of different successive empires and civilisations. Madhubani painting is a popular art-form of the Mithila region and expresses the creativity and sensitivity of its people. Like any folk art, it reflects the morals, values and customs of the region reflected in the emotional expressions of its women.

Madhubani paintings are characterised by figures that have prominently outlined, bulging fish-like eyes, and pointed noses. Originally the painting was done on freshly plastered mud walls of huts, but now it is also done on cloth, hand-made paper, and canvas. Interestingly, these paintings are done using fingers and twigs as well as matchsticks and pen nibs in the modern day. The themes and designs are of Hindu deities such as Krishna, Rama, Shiva, Durga, Lakshmi, Saraswati, Sun and Moon, Tulsi plant, court scenes, wedding scenes, and social happenings etc. Usually, bright colours are used in these paintings with an outline made from rice paste as its framework. There are rarely any blank spaces in

*Selling straw hats at Diamond Harbour*

these paintings. If there's a border, it is embellished with geometric and floral patterns. Natural dyes are used for the paintings.

Manjusha Art is a heritage of Ang Pradesh, present Bhagalpur in Bihar. This art has been prevalent in Bhagalpur for a long time. It is said to be the only art form which has a sequential form of story displayed in a series. The name of this art form also holds an interesting story. The Sanskrit word *Manjusha* means a box. These boxes were made from bamboo, jute-straw, and paper inside which the devotees kept their ceremonial material. Manjusha art was traditionally carried out in two parts by two different castes. The *Kumbhakar* caste was associated with shaping the pots on which the Manjusha art is painted and worshipped during the festival, whereas the *Malakar* caste was responsible for preparing the actual Manjushas and painting the art on these structures. The boxes were illustrated with paintings depicting the tale of Bihula who saved her husband from a deity's wrath, a snakebite of *Bishahari* or *Mansa*. Manjushas are a sequential representation of a story and are displayed in a series. They usually tell a tale about a mythological character. The cultural feats of Indian mythology have always fascinated people from around the globe.

The Mughal style of painting matured in the regime of Jahangir, and his period was considered the golden era of Mughal paintings, but during the rule of Aurangzeb in the late 17th and early 18th centuries, artisans faced mass persecution. The painters migrated from Delhi looking for shelter in different places. One such group moved eastward and landed in Murshidabad under the patronage of the local Rajas, Hindu Zamindars, merchants and other local aristocrats. Over a period, British merchants, that gained immense wealth through the opium trade became great patrons, giving the pictures the generic name Company Painting. In the mid 18th century, after the fall of the Nawab of Bengal and subsequent decline of Murshidabad, artisans started moving to the next biggest city in the east, Patna. In Patna they came under patronage of local aristocracy and often Indophile scions of the early East India Company. In due course, the Patna School of Company Painting or *Patna Kalam*, a style of Indian painting which existed in Bihar in the 18th and 19th centuries emerged. P*atna Kalam* was the world's first independent school of painting which dealt exclusively with the commoner and his lifestyle. This helped *Patna Kalam* paintings gain in popularity. The principal centres were Patna, Danapur and Arrah.

*Patna Kalam* is regarded as a native Bihar painting which is an offshoot of Indian painting with its distinct characteristics, with influences from Persian and the Company painting style developed for British patrons. The portraits can be clearly seen having colours and lines from the Indian native style, and the shading can be seen to be adopted from the British style. Diverging from the Mughal and Persian style of wide and exquisitely decorated borders, *Patna Kalam* primarily focused

*Making leather kuppis or bottles for perfumes at Kannauj is a fading art*

on the subject. Unlike Mughal painting, which focused on the royalty and court scenes, subjects of *Patna Kalam* were natives, the people on the street. Their main subjects were local pujas, festivals, ceremonies, bazaar scenes, local rajas, and domestic activities. The paintings were done on diverse surfaces such as paper, mica, and even ivory diskettes, that were used as brooches. A distinguishing characteristic of *Patna Kalam* is lack of any landscape, foreground, or background. Another characteristic was the development in the shading of solid forms. *Patna Kalam* paintings are painted straightway with the brush without marking with pencil to delineate the contours of the picture and the procedure of painting is popularly known as *Kajli Seahi*. Some well-known painters of Patna Kalam were Sewak Ram, Hulas Lall, Shiv Lal, Shiva Dayal, Mahadeo Lal, and Ishwari Prasad Verma. There is currently no one to carry on the tradition. Only three collections of *Patna Kalam* paintings exist in Bihar, one at the Patna Museum and others at Khuda Baksh Library, Patna, and Patna University's College of Arts and Crafts. The *Patna Kalam* flourished only until its Western patrons existed.

With painting, grew the demand for print making. Charles D'Oyly (1781-1845) brought out the first ever hand-coloured lithographic bird book titled, The Feathered Game of Hindostan, from the Behar Amateur Lithographic Press, which operated from Patna and Arrah. This was perhaps the first book narrating about the fauna of Hindostan after Baburnamah.

*Tikuli* is the word that is used locally to describe *bindi*, a dot worn on the forehead between the eyebrows as an accessory, but it is much more than just that. In the past, the *bindi* was created as a symbolic means of worshipping intellect and conserving the modesty of women. But in contemporary Bihar, it has now become a symbol of empowering women. *Tikulis* were made by melting glass, blowing it to a thin sheet and tracing the design patterns in natural colours. These were further embellished with gold foil and jewels. These *bindis* embellished with elegant and detailed designs could be seen adorning the foreheads of queens and damsels.

These art forms are of considerable cultural value and have a vast economy attached to them. They can also be acknowledged as a means of empowering women artists as women are associated with these crafts.

*Creating Devi from Ganga sediment in West Bengal*

# Into *the* Bay

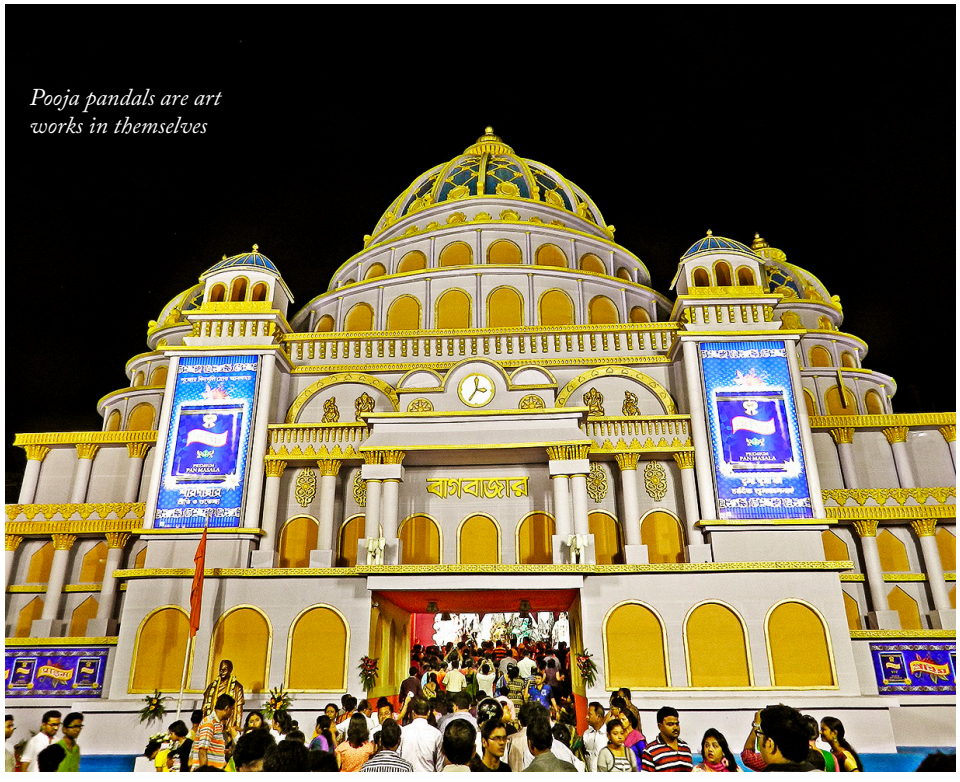
Shola is a specialised craft of West Bengal. Shola, the soft white core obtained from the stem of the eponymous plant, also known as Indian Cork, has been in use in Bengal since time immemorial. Traditionally, owing to its divine origin and pure white colour, the substance is considered auspicious, pure, and hence used during religious and social functions. There are many folklores associated with the origin of the Shola plant and the community of artists who use it to make the products. According to one folk tale, the plant originated from the whims of Lord Shiva. He requested Vishwakarma, the god of creative power, to bring him a pure white crown and garland to be worn during his wedding with Goddess Parvati. But when Vishwakarma failed to deliver, Shiva plucked a lock of his own hair and flung it in a pond, which immediately sprung up as a special reed. And when Vishwakarma failed to understand what to do with the reed, Shiva flung a hair off his arm into the pond from whence emerged a young man. This young man used the pure white core of the plant to make Shiva's crown, garland, and other ornaments. Shiva named the youth *malakar* or the garland maker, a name that the traditional shola craftsmen are still known by.

Until today, in traditional Hindu Bengali weddings, the bride and the groom wear special headgear made of Shola. The groom wears the conical Shola *topor* while the bride wears an ornamental crown or *mukut*.

Perhaps the best-known craft tradition of Bengal is the *Tant*, a weaving tradition that originated in the 15th century because of collaborations between Hindu and Mughal traditions, combined with a Bengali flair for design. The earliest record of sari weaving in Bengal can be traced back to the 15th century in the Shantipur District. The art continued to flourish during Mughal rule, from the 16th to the 18th centuries, when it received extensive royal patronage alongside Muslin and Jamdani. After the partition of Bengal in 1947, several weavers from Bangladesh migrated to India and were rehabilitated in West Bengal. Phulia, close to Shantipur, became a new home for these weavers from Tangail (in Bangladesh), who also brought their ancestral weaving traditions with them. Other weaver communities were settled in the Hooghly and Bardhaman districts of West Bengal. *Tant* sarees are woven with locally procured Bengal cotton, this fine hand spun yarn results in soft, super light muslin and Mulmul textiles that have been globally traded for ages now. Some of the most favoured time-honoured motifs include *bhomra* (bumblebee), *tabij* (amulet), *rajmahal* (a royal palace), *tara* (star), *ardhachandra* (half-moon), *chandmala* (garland of moons), *ansh* (fish-scales), *hathi* (elephant), *nilambari* (blue-sky), *ratanchokh* (gem-eyed), *benki* (spiral), *kalka* (paisley) and *phool* (flowers).

The story that began in the Himalayas, of a river goddess descending to earth to serve humanity, finds its climax in the silt and sediment

brought by it from the mountains and the plains of India. This sediment brought by the river in all its tumultuous travels once again fashions the Devi when every autumn, Kolkata gets ready to welcome Goddess Durga. It is that time of year when the city celebrates the spirit of love, laughter and life. Thousands of people throng the streets both from within as well as outside Kolkata to visit different *pandals* and view idols of Durga. However, Durga Puja is not just about celebrating the goddess but also the different forms of art, craft and traditions associated with it. One such community without whom the Durga Puja celebrations are incomplete are the sculptors of Kumortuli; these artistes work day and night to create the clay idols to be worshipped during the Durga Puja. Fact remains, that one cannot make the Durga images, without the best silt, sourced from the Ganga in its last course.



*Pooja pandals are art works in themselves*

Kumartuli is a traditional potters' colony in northern Kolkata established some 300 years ago when idol makers settled in Krishnanagar, a small town in Nadia district of West Bengal, making it renowned for its clay-modelling industry. The clay modellers started living around a place called Ghurni. Ghurni is near the river Jalangi (also called *Khoray*), so potters could easily procure the river sediment they needed for the idols. In due course, Ghurni grew up to be the potters' colony. The first recorded Durga Puja seems to have been celebrated in Krishnanagar, by its royal family and dates back to 1606. Around 1757, Raja Nabakrishna Deb of Shobhabazar Rajbari (king's palace) in north Kolkata, inspired by Raja Krishnachandra, started the tradition of *Durga Pujo* at his family home. Skilled *kumhars* were brought from Krishnanagar to create idols of the goddess – and this marked the genesis of Kumartuli. Workers started settling in Kumartuli by the Hoogly riverside.

> ***"Kumartuli is a traditional potter's colony in Northern Kolkata established some 300 years ago"***

Durga Puja rose to prominence during British rule when reformists identified the mother goddess with the nation. The number of Durga Puja celebrations increased from the early twentieth century onward. Around this time, *Puja* was also celebrated at a community level and reflected through the *baroyari* (12 friends) tradition, which derives its name from the puja performed by twelve people of Guptipara in Hooghly district. In later years, the term *sar-*

*bojanin* (community) replaced the word *baroyari*.

The first community *puja* in Kolkata dates to the *sarbojanin puja* at Balaram Basu Ghat Road in 1910. With time, the number of Durga Pujas grew and the number of *kumors* in Kumortuli grew to keep pace with the demand for clay idols. Many migrant workers from Krishnanagar and other parts of Nadia moved to Kumortuli. Today, idols made here are also imported by Bengali communities in countries such as France, England, the USA, and Germany. Kumortuli is situated between Ahiritola and Shobhabazar and bound by Rabindra Sarani (formerly Chitpur Road) and the river Hooghly. The narrow alleys with craftsmen's working studios, the smell of wet earth from the Ganga and the collections of idols left to dry along the lanes give the colony a distinct visual character and identity. In fact, the magnificent terracotta architecture and craft of Bengal cannot be imagined without the sands of the rivers.

*The Face of Shakti*

From the Internet, courtesy of Jagadhatri | creativecommons.org

# In Contemporary Culture

## *Eternal Relevance*

*Venerating the River*

Media plays a crucial role in making and breaking popular notions related to identity and culture. It has the power to shape debates and build public opinions related to the same. Since the boom of the global media industry in the last few decades, the world has shifted to a media-centric one where things which media shows are getting maximum attention. Media discourses have already established it as a domain which tends to manipulate one's physical, physiological and psychological identity (Baran & Davis, 2011).

Several other works from Herman Hesse's Siddhartha to contemporary times have alluded to the river and helped contribute to the imagery associated with the river. The Serpent and The Rope (1960) by Raja Rao, The Inheritance of Loss (2006) by Kiran Desai, and the poem "Simple Contradictions" (2010) by S. Murali Sivaramakrishnan, are representative voices from the post-colonial to the contemporary and global in Indian Literature in English, alluding to the river.

The Serpent and The Rope is a journey of discovery, apparently of intellectual discovery, where Rama is in search of Spiritual Truth, his spiritual truth, his true inner-self. In this search, his relationship with rivers and the image of water is very significant. The whole novel is full of rivers that become natural witnesses of Rama's inner search. It all leads to the Ganga River, the only river next to which he finds peace and feels communion with the environment. A complete description of the large body of literature on the river will be much beyond the scope of this monograph.

In the context of Ganga, the river has been correlated with symbols of purity and sacredness in different

narratives around the subcontinent. Mass Media has inevitably played a crucial role in it. Different media have narrated its stories and have used it as a symbol to convey the divine images associated with it. In Indian cinema, Television, and now on social media, Ganga has been used conveniently for different objectives.

Ganga as the mother goddess is a dominant image and a powerful symbol that has often been used in cinema for storytelling. The process of storytelling is a mediated communication in cinema. The angle of capturing and sequence of shots essentially signify how the story is told, conveniently conveying a multiplicity of meanings to mass audiences (Jia, 2014).

The symbol of Ganga in Hindi cinema reflects the image of purity, unity and completeness. If characters are given the name Ganga, they are mostly expected to possess a high moral character and are always justified in their deeds. Not a single film has been made where any negative connotation has been associated with the symbol or the name of Ganga.

***"The symbol of Ganga in Hindi cinema reflects the image of purity and unity and completeness"***

From the Internet, courtesy of producers

The genre of mythology, as well as contemporary themes, making use of the river as a metaphor in storytelling is popular in Indian cinema. It has instilled popular beliefs and stories among the viewers (Patnaik, 2009). In Hindi cinema no belief or myth has been challenged prominently, and they have generally been accepted and glorified by cinematic tools.

The history of Ganga in Hindi cinema can be traced to the 1937 film by Dada Saheb Phalke, *Ganagavatarnam*. The film depicted the myth of King Bhagirath who prayed for the Goddess to come from heaven to cleanse the sins of his ancestors. Later, many films were made and depicted the same story in different styles. The name Ganga has also dominated the Indian film industry for a few decades. Many films borrowed the name Ganga in titles, dialogues, names of protagonists to invoke certain mythical characteristics and features of the river. This borrowing was significant to the storyline to communicate the theme of purity, truth, and sacredness related to the production. Some of them also established that the banks of Ganga were home to honesty and morality. The people living on its banks are pure and kind-hearted like the river. This image finds a reference in films like Raj Kapoor's J*is Desh Main Ganga Behti Hai* (1961).

*A still from Ganga Jamuna*

From the Internet, courtesy of producers

Movies like *Ganga Jamuna* (1961) started the trend of naming the protagonists Ganga which either have characteristics similar to the mythological representation of the river that nurtures and supports everyone without any discrimination, or the one who has been pressurized by the system to deviate from the path of truth and non-violence but for the cause of good. In the end all deeds committed by the character are justified and move towards the good. This trend persisted for quite some time on the big screen and many films continued this portrayal.

In cinema, the point of view of the director is essential in storytelling. It is the director's vision that prevails in setting the temperament of the storyline. Directors use different tools and ways in telling stories. The semiotics inevitably used in them, too, follow the approach of redundancy which is highly predictable and extends the popular concept into the social dimension (Fiske, 1982).

The era of the 1970s begun to have clichéd stories with a conflict in the beginning and a happy ending. Many films started to symbolize Ganga through dialogues and titles. In the year 1978, the Amitabh Bachchan starrer *Ganga ki Saugandh* released, which is a revenge tale showcasing the protagonists taking a pledge of the water of the Ganga to punish the villain for his wrongdoing. The pledge taken in the name of Ganga is shown to be powerful and inviolable. This propagates the divine image of Ganga, where anything pledged on its name is destined to be fulfilled.

*Poster of a Popular Film*

From the Internet, courtesy of producers

It was in the year 1985 that the trumpet of feminism, through the symbol of Ganga, was blown loudest in the Hindi film Industry. This was the movie *Ram Teri Ganga Maili*. The storyline of the film revolves around the myth of the river that is pure and clean and nurtures everyone, never compromising on her values. The name of the female protagonist is Ganga, who travels from Gangotri to Kolkata to meet her beloved and gets exploited during the journey. The movie narrates her miseries and her struggle to survive in an unfamiliar terrain. It highlights how people living downstream are trying to exploit

> ***"In the 21st century, the river has been more and more employed as an allegory"***

her in all possible ways. She wants to meet her husband but everyone wants to possess her eternal beauty. On the contrary, Ganga is so determined to meet her husband and rigidly faces all the challenges without compromising on her values, that she continues her journey. In the end she finally meets the love of her life and fulfils her arduous destiny. This film, through different codes and signs, advocates the rights and grievances of women). It is one of the first films where Ganga has been symbolized by a lady who is pure and clean upstream in the Himalayas, and gets polluted downstream. The movie alludes to the myth of the Ganga and talks about its purity.

In the 21st century, the depiction of Ganga in Hindi cinema has evolved. The icon Ganga has not been prominently shown in the foreground. The mythic or the name of the protagonist carrying her characteristics is not relevant anymore. However, employing the river as an allegory has evolved in other ways. From direct symbolism, the Ganga has moved to be a force in the background. It means that from a denotative role in the storyline, it has assumed a connotative role.

Prakash Jha's film *Ganga Jal* (2003) on the Bhagalpur blindings, repeatedly uses the word Ganga as a reference for acid, since it is this acid that is supposed to have been poured by a few policemen—as an act frustration to combat evil forces—in the criminals' eyes, thus eliminating crime and checking criminals. Much like the Ganga waters, the acid here performs the function of purifying the sinner. In the year 2005, another film named Water, narrated the miseries of widows on the banks of the Ganga. *Dharam* (2007) was a film that dealt with an uncomfortable issue of communal conflict and was shot in Banaras on the banks of the Ganga, depicting communal tensions between Hindus and Muslims. The 2015 film *Masaan* showcased the conflicts in the lives of characters setting Ganga as the backdrop. It has depicted the tale of two individuals separated by caste, customs and rituals prevalent on the banks, with their problems and miseries to handle. But despite hurdles, the two souls unite by the flowing stream of the pious waters. The river remains in the backdrop but inevitably plays a crucial role. Importantly, *Masaan* depicts the lives of the *Doms*, the community that burns corpses in Varanasi. The male protagonist is a *Dom* who wishes to pursue another path in life, breaking away from the path ordained by caste.

In the 1980s and 1990s, Ra-

*The popular Mahabharata series began with the story of Ganga*

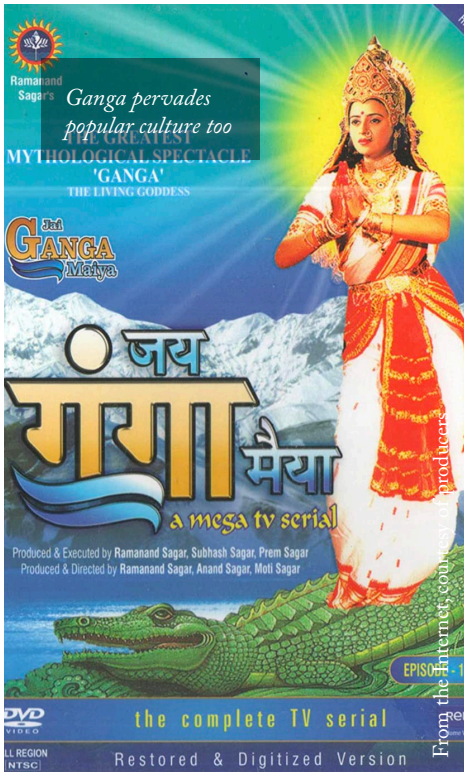
From the Internet, courtesy of producers

mayana and Mahabharata were telecast by state broadcaster Doordarshan. Both series became extremely popular and generated gross revenues in crores (Krishnan, 1990).

In the series Mahabharata, directed by B. R. Chopra, Ganga has a significant role. She is the one whose departure from the life of King Shantanu sets the tone for the unfolding of events in the great epic. It was in this series, that Goddess Ganga appeared on television as a human figure for the first time. It depicted Ganga as the headstrong woman who makes her own decisions and is not answerable to anyone. She is beautiful and complete

in every aspect but cannot be seized or controlled by anyone. She is an anchor and guide for her son Bhishma but nothing can stop her from realizing her destiny. She had laid down the condition, before marrying, that in no case would her conduct be questioned. She bears many children to the king but instantly drowns several of her new-born. When the king can take this no more and questions her conduct, she leaves the palace, as also her last son Bhishma, assuming the form of a river.

This symbolic, sacred image of Ganga has also been depicted in Ramananda Sagar's *Jai Ganga Maiya*. The show was telecast on DD Metro and completed 106 episodes in the year 2003. The series showed the mythological tales associated with the river including the descent in the Himalayas after the penance of Raja Bhagiratha. It depicted a strong, nurturing image of Goddess Ganga showing how Ganga is an impartial figure who loves all of her children equally and showers benedictions on all. Her character epitomizes all the characteristics of piety, purity, and power. The title track of this series was composed by legendary music director, Ravindra Jain which became immensely popular among its viewers and can still be heard blaring loudly in pilgrimage sites along the river.




*Ganga pervades popular culture too*

From the Internet, courtesy of producers

*Shiva as Gangadhara in a sitcom*

From the Internet, courtesy of producers

# Divine Nutrition

## *Food for the Soul*

*Packing Gattas, a sweet from Kannauj*

Food is significant to human well-being. Human civilizations have been offering food to their deities as a sacred ritual. Ancient Greeks often talked about ambrosia, considered nectar to the gods, served at heavenly feasts. Greek Mythology mentions a nymph named Ambrosia, who turned into grape vine, whose fruit when turned into wine and when consumed by gods, rendered them immortal. The god of wine, of course, is Dionysius. In ancient Rome, Bacchus, the god of wine and agricultural produce was important. In Japan, soy is the food for Buddha, where temples usually have chefs attached to them.

In the Indian tradition, food is regularly offered to deities before it is consumed by humans. Believers say that *prasad* or food once tasted by the gods is graced by the breath of god. In fact, it is believed that food cooked in temple kitchens when distributed in its transvalued form as *prasad*, is biologically incorporated in a community as divinely blessed substance. Therefore, *prasad* is much sought after, and one must seek it rather than wait for it to be offered. For instance, in the Bhagwad Gita (Chapter 9, verse 26), Lord Krishna says:

*Patram, puspam, phalam*
*Toyam yo me bhaktya prayacchati*
*Tad aham bhakti-uphartam*
*Asnami prayatatmanah*

*If offered with love and devotion, a flower, fruit, water, I shall accept it.*

Social groups in India have been specially designated across India to serve deities. For instance, in Uttarakhand, close to the origin of the Ganga, the Sarola Brahmins were assigned the task of cooking food for Lord Badrinath and the Royal household of Tehri Garhwal.

***"In the Indian tradition, food is regularly offered to deities before it is consumed by humans. Believers say that prasad or food once tasted by the gods is graced by the breath of god. In fact, it is believed that food cooked in temple kitchens when distributed in its transvalued form as prasad is blessed"***

*The delicious Thagoo Ladoos from Kanpur*

Food has been at the heart of human existence, and organic cities that have evolved along the Ganga over the centuries have developed their own unique cuisines and eating habits. Take Haridwar for instance, where the pilgrim foods, inexpensive and filling, have become standard fare. For instance, Mohan Puriwala, close to the Thanda Kuan in the town's main bazaar, serves up *Puri-Alu-Halwa* along with specialised sweets such as *Chandrakala* and *Pedas*.

## Ladoo

The variety of sweets prepared and enjoyed in India is mind boggling, and of all, ladoos are probably the most common and also the most loved. Ladoos are also considered to be God's beloved sweet offering – be it Lord Ganesha's favourite Motichoor, that traces its origins from a small town near Haridwar, or the famous Magdal of Bengal. Back in the day, the Coconut Ladoo was packed for warriors and travellers as a symbol of good fortune while they embarked on their journey. But Thagoo ladoos, that come from Kanpur, have little competition elsewhere. The story behind keeping such a name with negative connotations for a food enterprise is quite interesting. *Thagoo* refers to a practitioner of *thugee*, the frightening art of deceptively strangling to death and looting travellers along old trade routes. The founder of this successful food enterprise once heard a speech by Mahatma Gandhi in Delhi, where Gandhiji remarked that sugar was "white poison" and could lead to several deadly diseases. But people, oblivious of the facts, were still consuming it and paying a lot of money for it. Thus, they were being tricked by the British, like thugs, into

paying for their own deaths.

This put the ladoo maker in a dilemma because he wanted to avoid using sugar, but there was no way to prepare ladoos without it. Therefore, he decided to call them *Thaggu ke Ladoo* to hint that the customers were being tricked, and warn them about the side-effects of consuming refined sugar. Over the years, this became a big brand, with their equally famous tagline, "*Aisa koi sagaa nahin, jisko hamnen thaga nahin* (There isn't an acquaintance that we have not cheated!)." The tagline was later used in a Bollywood song, penned by none other than Gulzar. The sweet shop is popular for selling only two foodstuffs, Ladoos and Badnaam Kulfi, another strange name which translates into ice cream with a poor reputation.

Further downstream, in the streets of Kannauj, a town known for its perfumeries, one can find a soft, delectable sweet called Gatta. Sugary, and smelling of roses, this snow white sweet is stuffed with dry fruit and clarified butter. Such foods make cuisines along the Ganga a subject of study into themselves.

***"In the streets of Kannauj, a town known for its perfumeries, one can find a soft, delectable sweet called Gatta"***

*Frying Imartis in the streets of Banaras*

# Flavours *from the* Streets *of* Banaras

Foods of Banaras are influenced by the many different kinds of people who have made it their home over the centuries. They have begun to cater to tastes of pilgrims from the home state. For instance, Marwari traders and pilgrims from Bihar and West Bengal exercise a major influence on the local palate. Banaras sweets like Magdal, Sankat Mochan ke Ladoo, Parval Mithai, Kheer Mohan and Launglata have a distinct Bengali influence. The popular street food of Kachori Sabzi is standard fare for Marwari traders.

Makhan Malaiyyo or Nimish is a popular winter street dessert influenced by the Persian way of cooking. Milk froth is flavoured with saffron and cardamom and garnished with pistachios and almonds. Served in *purvas* or *kulhads*, hand crafted terracotta bowls and glasses, the creamy froth literally melts in the mouth.

While Lassi and Thandai are favoured beverages, Tamatar Chaat is the snack to have on the streets of Banaras. This concoction of spiced tomatoes mixed with asafoetida and other spices, along with potatoes and miniscule savouries is the essence of all foods in Banaras. It is served in bowls made out of *Palash* leaves. Foods become more stylised in Banaras, thanks to greater cultural refinement, where the Chaats and Kachoris are influenced by both west and east India. In Banaras, the Betel or *Paan* has also been perfected into a fine art. Thandai and Malai Puri, as well as other sweets are also more nuanced. Mango preserve, also known as *Aam Papad*, is another delicacy.

# Close *to the* Sea

Baati Chokha is the food from Bihar that makes a tasty snack in the belt from Banaras to Bengal, especially in Bihar. Baati is a wheat ball stuffed with sattu, and Chokha is a mash of eggplant and potatoes, laced with spices.

Cuisines and culinary experiences take a whole new turn in West Bengal. From the mouth-watering Rasogullas, Chomchom, and Rasamalai, the super tasty Sorshe Ilish and Chingri Macher Malai Curry, are just but a few of the tempting foods of the highly evolved Bengali tastes. A lot of the cuisine depends on the produce from the Ganga banks and the delta. For instance, Poppy seeds are an essential ingredient of Bengali cuisine. Aloo Potol Posto is a spicy dish that contains the rich flavour of poppy. Fish like Hilsa or Ilish are also a gift from the river. Ilish Macher Jhol, a pungent smelling curry with Nigella seeds and chilli is another Bengal delicacy. But Bengali cuisine is also a vegetarian's delight. Usually served as the first course of a diet, Shukto is a combination of different vegetables like Brinjals, Bitter Gourd, Crunchy Drumsticks and Bori. Mixed with grounded spices and milk to make a thick curry, this is a perfect way to start a meal.

The most popular sweet from Bengal, the Sandesh is made of *khoya*, a version of condensed milk. Unlike the *mithais* from other parts of India, this sweet is not cloying in its sweetness.

As with cultures, the lands along the Ganga are rich with the tastes and flavours of foods that have evolved over centuries.

*Typical fare served traditionally in the delta regions*

# Health & Wellness

## *Elixir of Life*

*Ganga rejuvenates*

The wellness aspect of the river begins with *Ganga Jal* or the sacred waters of the river. *Ganga Jal* is stocked in almost all Hindu households and its use is considered auspicious – purifying all individuals and places wherever it is sprinkled and driving away evil spirits. With this belief *Gangajal* is used in all types of *yajna/homam* to bring prosperity through rituals such as *Ganga Pujan, Laghurudra, Maharudra, Atirudra, Durga Puja, Lakshchandi Yajna, Navchandi Yajna, Gayatri Yajna, Bhoomi Pujan, Shilanyas, Murti Pratishtha, Vastu Shanti, Grah Shanti, Nakshatra Shanti, Kalsarp Shanti, Shradh Karma, Narayanbali, 'abhishek'* of *Shiva lingam, Vivah Samskara* (marriage ceremony), and many more. The holy water virtually represents the lifeline for Hindu society and is used until one's death – drops of water into the mouth of a dying person are believed to secure instant salvation.

Interestingly, *Ganga jal,* with hitherto undefined chemical or biological properties is known to have an indefinite shelf-life, which adds to its sacred appeal. *Ganga jal* is considered to possess more medicinal elements than water of any other river and because of its curative powers, it is used in ayurvedic and naturopathic applications for curing a range of ailments. This property is attributed to the vast reservoir of minerals and herbs available in the catchments of the Himalayan reaches through which Ganga flows. In its 2,500 km journey, the river waters erode mineral rich rocks and carry their essential minerals. Combined with its bacteriophages, the water gains regenerative properties.

Given the potent combination of spiritual significance and medicinal properties, almost all pilgrims coming to its holy *ghats* collect *Ganga jal* as an

> *"Ayurveda translates to knowledge of life"*

inalienable ritual and carry it to their homes. But there are several other aspects of health and wellness attached to the Ganga. For instance, a combination of astrology and a study of medicinal plants has resulted in the emergence of the discipline of Ayurveda. Ayurveda is essentially a system of natural medicine that originated in India more than 3,000 years ago. The term Ayurveda is derived from the Sanskrit words, *ayur* (life) and *veda* (science or knowledge). Thus, Ayurveda translates to knowledge of life. Based on the idea that disease occurs due to an imbalance or stress in a person's consciousness, Ayurveda encourages lifestyle interventions and natural therapies to regain a balance between the body, mind, spirit, and the environment. Ayurveda treatment starts with an internal purification process, followed by a special diet, herbal remedies, massage therapy, yoga, and meditation.

The concepts of universal interconnectedness, the body's constitution or *prakriti*, and life forces or *doshas* are the primary basis of ayurvedic remedies. Treatments aid the person by eliminating impurities, reducing symptoms, increasing resistance to disease, reducing worry, and increasing harmony in life. Herbs and other plants, including oils and common spices, are used extensively in Ayurvedic treatment.

Many well-known Ayurveda centres have emerged along the Ganga, where practitioners, especially in the Himalayas, pluck certain herbs and prepare medicines. Banaras and other pilgrim towns along the Ganga are also established centres of Ayurvedic treatment.

*Exercising on the Ganga Banks can be Revivifying*

## Uniting Body, Mind & *the* Universe

Yoga is a physical, mental, and spiritual practice that originated in ancient India. First codified by the sage Patanjali in his *Yoga Sutras* around 400 CE, the practice was in fact handed down from teacher to student long before this text arose. Traditionally, this was a one-to-one transmission, but since yoga became popular in the West in the 20th century, group classes have become the norm. The word yoga is derived from the Sanskrit root *yuj*, meaning to yoke or to unite. The practice aims to create union between body, mind, and spirit, as well as between the individual self and universal consciousness. Such a union tends to neutralize ego-driven thoughts and behaviour, creating a

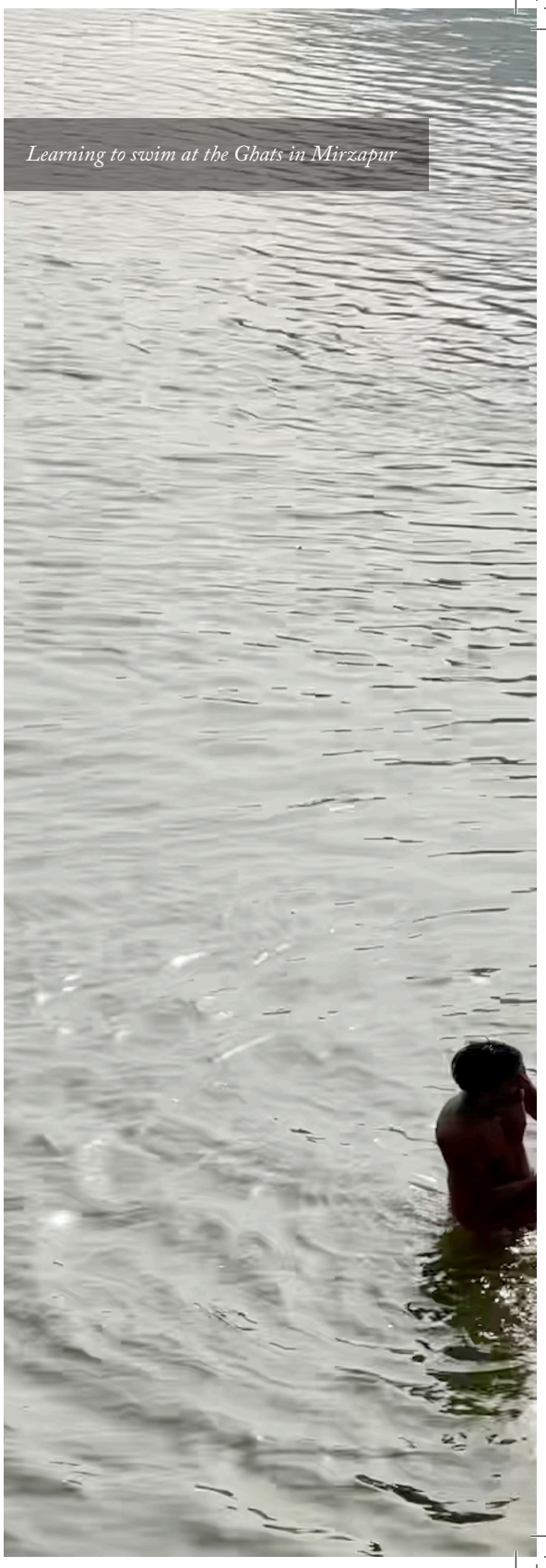
sense of spiritual awakening.

Yoga has been practiced for thousands of years, and whilst many different interpretations and styles have developed, most tend to agree that the goal of yoga is to achieve liberation from suffering. Although each school or tradition of yoga has its own emphasis and practices, most focus on bringing together body, mind, and breath as a means of altering energy or shifting consciousness. Today, the banks of the Ganga attract people from across the globe, to master this ancient practice. The Muni-Ki-Reti and Lakshman Jhula areas in Rishikesh are commonly referred to as the Yoga capital of the world, with plenty of practitioners and teachers. The presence of ashrams established by sages such as Swami Shivananda, Swami Chinmayananda and Maharishi Mahesh Yogi have led to this acclaim. Gurukul Kangri Vishwavidyalaya and Dev Sanskriti Viswavidyalaya are universities in Hardwar, focused Yoga and Ayurveda, along with other subjects.

Although modern schools of Yoga such as Jivamukti, Iyengar, Bikram and Sivananda offer alternative interpretations, most are rooted in the same philosophical concepts and practices as Patanjali's Eight Limbs (*Ashtang Yoga*). Yoga is also used as a therapeutic tool for many physical and mental conditions, and mind-body research is now demonstrating its effectiveness as a treatment for chronic pain, anxiety, depression, cardiovascular disease, and diabetes, to name but a few.

Banaras has been a great centre of Indian philosophy, spiritualism, Ayurveda, Yoga, and mysticism. There are separate faculties and departments of Yoga, Ayurveda, Meditation and Astrology in Banaras Hindu University and Sampurnanand Sanskrit University. Other centres include Man Mandir, Bhring Sanhita Kendra, Bhadaini Center for Yoga and Meditation, Pragya Yoga Institute, Gayan Pravah, Kashi Yoga Sangh, Sankat Mochan and International Yoga and Meditation Centre, Nagawa.

Further down the river, in Bihar, is located the Bihar School of Yoga, located at Ganga Darshan Vishwa Yogapeeth, Munger, established by Shri Satyananda Saraswati. It was in Munger that Sri Swami Satyananda had the revelation that he would fulfil the mandate of his guru Sri Swami Sivananda Saraswati, by creating a fellowship of yoga, and devote himself to the elevation of human consciousness by disseminating the light of yoga. The eternal flame, the *akhand jyoti* lit over fifty years ago in Munger continues to burn bright in Jyoti Mandir and points to efforts being made by the institution to make Yoga the culture of tomorrow. Maintaining ancient traditions and practices, the teachings of Bihar School of Yoga provide practical techniques and methods to bring simplicity, harmony, and balance into life in the modern world. Yoga at Bihar School of Yoga is not just a practice, but a lifestyle which offers an experience of complete integration of human personality and nature.



*Learning to swim at the Ghats in Mirzapur*

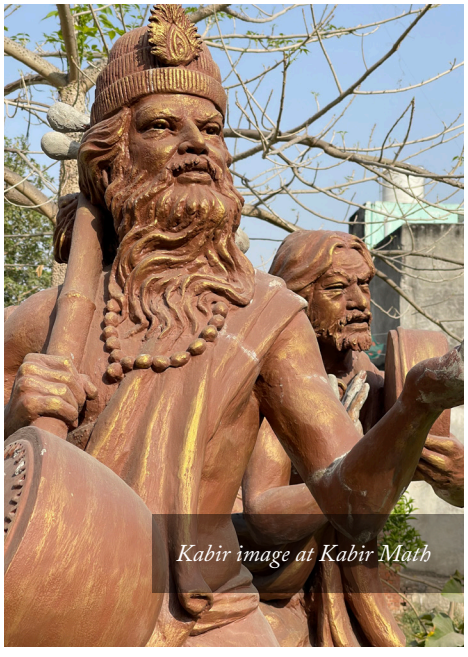
Ganga
Katha

CHAPTER IV

# Building Cultures *along the* Banks

*Ganesh Ghat, Banaras*

*Nandi sits patiently outside the Shiva-Kalika Temple*



*Kabir image at Kabir Math*

Most civilizations have risen along banks of rivers. But no other civilization has enjoyed the longevity of the Indian civilization, and the main reason for this is, perhaps, the fact that Ganga has remained its main artery and life blood.

In India, with the river Saraswati preferring to merge into the netherworld, Ganga rose to prominence. The legend of her origin, the rites of passage the river began to support for every social group in the sub-continent, along with a fertile alluvial terrain she supported, helped India transition from a culture of hunter gatherers and pastoralists, into an agrarian and trading society. This gave rise to cities along its banks. Even those cities at a distance from Ganga, situated along other rivers or further inland, traced connections with Ganga. Prosperity along the banks gradually led to a flowering of arts and culture. Art, music, dance, literature, painting, carving, poetry, spiritual sciences, Ayurveda, Yoga, and so many other myriad streams of knowledge and philosophy began to flow along the river. These cities gradually emerged as expressions of architectural and cultural splendour, vestiges of which one can still witness along the banks of the river.

The Indian civilization soon came to recognise that the Ganga was no ordinary flow of water, but a stream that nurtured the mind, body, and spirit. Seekers flocked to its banks to realise the truth. Cities along the Ganga not only became centres for cultural preservation but also spaces where social evolution and innovative disruptions came to be.

## A Culture of Learnings

In the above context, the story of how Kabir, the 15th century poet-mystic came to acquire an education comes to mind. Kabir was found by his parents, Muslim weavers in the city of Kashi, floating in a basket along the banks of the Ganga. His antecedents unknown, Ramananda, the eminent Sanskrit Vaishnav scholar and teacher, refused to enrol Kabir in Shree Math, his school for Hindu theology. The young Kabir, keen to learn, came to know that Ramananda came to bathe in the Ganga in the *brahm-muhurtam*, the wee hours before sunrise.

He quietly lay down on the steps leading to the river. As

Ramananda approached the ghats, he stepped on to Kabir in near darkness. Kabir was ecstatic and ran around the by lanes of Kashi, claiming that Rama had indeed touched him. Word soon reached the eminent teacher even as Kabir continued to repeat his claim until the teacher could ignore it no longer. He called for the young boy and quizzed him about his statements. Tongue firmly in cheek, he replied, "I did not even name you, I only talked of Ram. Sure, Ram has touched my soul. And yes, you did step on me on the way to the Ganga." Ramananda instantly recognised the sharp intellect and intense desire to learn within the young Kabir and accepted him as a disciple, an act that firmly broke the shackles of social segregation practised in the time. Such have been the social disruptions happening along the banks of the great river. Therefore, the urban centres along the Ganga have not only been repositories of cultural heritage but also the torchbearers of positive social change.

In this chapter, let us look at some of the architectural wonders along the river, from source to mouth, some of which seem to have been there since eternity. Some of these monuments trace their existence to the Vedic and Mahabharata periods, while some others are of more recent vintage.

***"If we notice carefully, we realise that all our important cities along the Ganga are oriented towards the river"***

## Artery *to the* very Heart

Until 1857, Ganga remained the most significant transportation and cultural artery in the country. The bulk of the trade and transportation from the delta, at the mouth of the river, to the very heart of India, happened through boats and barges on the Ganga. Close to a hundred urban centres grew along the banks of the river. Constant loading and unloading of men and material gave rise to the need for *ghats*. If we notice carefully, we realise that all our important cities along the Ganga are oriented towards to river, the *ghats* forming the city centres where populations often meet for ritual celebrations. The grandest monuments along the Ganga, therefore, are also located on the *ghats*. Even with the building of the Grand Trunk Road, the significance of Ganga did not diminish.

In the historic cities along the Ganga, people, until today, interact with the river waters daily, for bathing, praying and even for ablutions. *Ghats*, thus, are a significant architectural typology allowing for people to wade into the waters at will. If we compare this to European cities along rivers, we find a clear separation between human populations and the river waters, with the river front clearly demarcated with promenades, therefore allowing people to walk along but never enter the river.

Over time, technology and history combined to transform the future of these cities. For instance, the town of Mirzapur, upstream of Banaras, now sleepy with its ornate *ghats* almost abandoned, was once a bustling hub of trade. It was a centre for the trade of indigo and metal containers of all kinds. It also had a virtual monopoly over trade of a material called *Lal Chapda*, a sealant and water proofing material used in coastal areas across the world for protection against water corrosion. *Lal Chapda* was indigenously produced by *adivasi* or tribal populations around Mirzapur, who would place a particular herb at strategic locations in the forests. A species of insect would soon swarm in to breed on the plants. Their droppings once collected, formed a precious red sealant for boats, ships and timber architecture. *Lal Chapda*, a material was in high demand globally. With the denudation of forests and colonialism dictating agri-economic policy, demand dissipated, the insects disappeared, and industrial nations soon invented synthetic substitutes. Indigo also met a similar fate and Mirzapur was almost wiped off the trading map of India.

The shifting of the capital of British India from Calcutta to Delhi, followed by aggressive growth of railway and road networks, completely shook Ganga's pre-eminent position as the main artery for trade in India. New urban centres began to orient

themselves away from the river. Despite this, people continued to look up to its waters as a spiritual and agrarian benediction. Nowhere is this more visible than along the Kangan Ghat in Patna, Bihar. The Ghats are giving way to an elevated road being built along the riverfront, segregating the city from the river, obstructing the view of the riverscape and seriously hampering the linkage with the river. No wonder, most people in Patna wonder why the river appears furious, keeps moving away from the city, when it once flowed through it giving rise to glorious empires.

Unfortunately, people's unshakeable belief in the self-cleansing properties of the river led all urban centres along it to pay scant attention to waste disposal. As a result, over 95 urban centres along the Ganga continued to dispose their waste into it, making the river a recipient of sewage and waste. Today, many of these once vibrant centres of spiritual uplift, culture, trade, and industry, are facing urban decay and degradation.

The 5 km wide corridor on either bank of the river contains heritage buildings including forts, palaces, temples, *ghats*, civic facilities, colonial heritage, inns, *ashrams*, gardens, dwellings, and even minor structures such as *kos-minars*, wells, pillars, palisades etc. and demonstrates that a wide variety of architectural styles spanning archaeological remains, Buddhist stupas and monasteries, Hindu temples, Mauryan remains, battlefields, Mughal gardens and mausoleums, mosques, ancient and heritage bridges, waterworks, old residences, Indo-Saracenic and classic colonial styles such as the French, Portuguese, Dutch, Danes, and of course, the English.

Many of these are lying neglected or direlict or threatened with encroachment. The preservation and rejuvenation of this heritage lends character to these towns and links society to its own history.

*Namami Gange gallery at Chandi Ghat, Haridwar*

# Mythical Monuments

## *Since the Edge of Time*

*The shrine of Kedarnath in the magical mountains*

The world along Ganga is steeped in myth and mystery. There are so many stories along the river that it would require several volumes to describe them. In fact, the river Ganga is a sacred landscape that unites the Indian sub-continent through myth and history.

In the Himalayan regions where Ganga begins her journey, the sacred *prayags* or confluences reverberate with myths. Devprayag is one such space where Lord Rama is said to have practised penance for the killing of the learned but egotistic Brahmin, Ravana. The place became a centre for learning and a *vedhshala* or observatory came to be established here. The first *snana* of the Hardwar Kumbh is, in fact, performed here by the saints who then proceed to make astrological calculations to determine the calendar of the main bathing dates.

Mahabharata Connections

During the Mahabharata war, the Pandavas committed fratricide to uphold righteousness; and to absolve themselves of this sin, the Pandava brothers undertook a pilgrimage to Kashi, now Banaras or Varanasi. Lord Vishweshwara was away in Kailas in the Himalayas. On learning of this, the Pandavas left Kashi. They reached the Himalayas. They perceived Lord Shankara from a distance. But Lord Shankara hid from them, not keen to absolve anyone of their negative karma. Then, the eldest brother, Dharmaraj Yudhishthira, said, "Oh, Lord, you have hidden yourself from our sight because we have sinned. But, we will seek you out somehow. Only after we take your darshan, would our sins be washed away. This place, where you have hidden yourself will be known as Guptakashi and shall become a famous shrine."

From Guptakashi in

Rudraprayag, the Pandavas continued to walk until they reached Gaurikund in the Himalayan valleys. They wandered there in search of Lord Shankara. While doing so, Nakul and Sahadev found a buffalo that was unique to look at. Then, Bheema went after the buffalo with his mace. The buffalo was clever and strong, and Bheema could not pin him down, which surprised him. But Bheem managed to hit the buffalo with his mace. The buffalo managed to hide its face in a fissure in the earth. Bheema started to pull it by its tail. In this tug-of-war, the face of the buffalo emerged from the earth in Nepal, leaving the rump in Kedar. The buffalo face of Shiva emerged as Doleshwar Mahadev in Sipadol, Bhaktapur, Nepal. On the hind part of the animal, a *jyotirlingam* appeared and Lord Shankara appeared from this light. With Shankara in *Mahisharupa*, Bheem had struck him with a mace. Upon realising his folly, Bheema was overtaken by remorse. He started to massage Lord Shankara's body with *ghee* to seek forgiveness. In memory of this event, even today, this pyramidal Shiva *jyotirlingam* at Kedarnath is massaged with *ghee*, clarified butter made out of cow's milk. Water and *Bel Patra* (*Aegle marmalos*) leaves are used for worship. By getting a darshan of Lord Shankara, the Pandavas sought Shiva's blessings. The lord told the Pandavas, "From now on, I will remain here as a pyramidal *jyotirlingam*. By taking a *darshan* of Kedarnath, devotees would attain piety".

*The Sun God image with Ganga and Yamuna on the door jambs, Bharat Mandir, Rishikesh*

> ***"Legend says that when Nara-Narayana went to Badrika Village and started the worship of Parthiva, Shiva appeared before them"***

Another legend says that when Nara-Narayana went to Badrika Village and started the worship of *Parthiva*, Shiva appeared before them. Nara-Narayana wished that, for the welfare of humanity, Shiva should remain there in his original form. Granting their wish, in the snow-clad Himalayas, in a place called Kedar, *Mahesha* himself stayed there as eternal light. Here, he is known as *Kedareshwara* and revered as one of the twelve *jyotirlingams*. A pyramidal rock is worshipped in the *garbha griha* or the sanctum sanctorum of the temple. In the Kedarnath landscape, there are many signs of Pandava presence.

Raja Pandu died at Pandukeshwar. The mountain top where the Pandavas went to *swarga*, the proverbial heaven, is known as *Swargarohini,* which is located off Badrinath. When *Dharmaraja* was leaving for *swarga*, one of his fingers fell to

*Daksh Mandir, Hardwar*

the earth. At that place, *Dharmaraj* installed a *Shiva lingam*, which is the size of the thumb.

The Daksheshwar Mahadev temple is situated in the town of Kankhal, just downstream from Har-ki-Pairi. It was in this legendary town, mentioned in the Mahabharata and Vayu Purana that king Daksh Prajapati, father of Sati, performed the *Mahayagna* to which he did not invite her husband, Lord Shiva. Humiliated at the insult, Sati jumped into the sacrificial fire. Sati Kund on Ganga banks at Kankhal marks the site. Therefore, this is where the legend of Parvati as Sati and the *Shakti Peethas* that bind the sub-continent through devi worship emerge. Haridwar is the only holy spot to have three of them: Maya Devi, Mansa Devi and Chandi Devi. Legend has it that the founder of the Sikh faith, Guru Nanak visited Kankhal on Baisakhi. Gurudwara Guru Amar Das ji at Sati Kund was built at the site where the third Sikh Guru stayed when he visited the site.

Many mythical monuments dot the Ganga landscape. Bijnor, in the Rohilkhand-Bareilly region of Uttar Pradesh is a significant region from the Mahabharata period. Vidur Kuti, though a modern structure now, and a little removed from the river, is revered as the residence of Dhritrashtra's advisor, Vidur, often visited by Krishna. Hastinapur, 35 km from Meerut is believed to be the earlier capital of the Pandavas, situated on the banks of the Budhi Ganga. Nearby, Pushpavati Pooth is believed to be the site of the Gurukul where the squabbling siblings, Pandavas and Kauravas, learnt the art of war. A Gurukul still runs here, and the spot is well known for its temples of Mahakaleshwar, Raghunathji and Mandakeshwar. Further downriver, Kannauj belonged to the Panchala kingdom.

In Hastinapur, near Meerut, archaeological excavations have yielded about 135 iron objects including arrows and spearheads, shafts, tongs, hooks, axes, and knives. There are indications of brick–lined roads and drainage systems, and an agropastoral economy. The Painted Grey Ware found in Hastinapur dates to 2800 BCE and beyond. Further excavations at Draupadi–ki–Rasoi and Draupadi Ghat resulted in the discovery of copper utensils, iron seals, gold and silver ornaments, terracotta discs and several oblong shaped ivory dice used in the game of Chaupar, dating to 3000 BCE have also been found.

In Debai, Bulandshahar, according to mythological sources, Karnawas is assumed to be named after Lord Karna. The legends mention that in the fear of being shamed for becoming a mother without entering into wedlock, Kunti abandoned her child by putting him in a basket and letting him flow in the arms of River Ganga. This basket was found on the banks of the river by a couple. The couple, Adhirath and Radha, adopted this child and decided to raise him in this village. This child was Karna, who while growing, would daily worship Maa Kalyani Devi. It is said that the goddess would grant Karna 50 kg of gold every day. Karna, who has been described as a generous donor, would sit on a spot near this temple and distribute the gold. The

*Ruins at Connouge, 1801, Kannauj*

spot where Karna would make his daily donations, is marked as Raja Karna Temple, and is located next to Maa Kalyani Devi Temple.

Another important place to be linked with the mythological era is Ahar. Ahar is believed to be the capital of King Bhishmak and was known by the name Kundanpur. Sources mention that King Bhishmak's daughter, Rukmini, and Lord Krishna wanted to marry each other. Although King Bhishmak had given his consent for this marriage, this decision was opposed by King's son and successor Rukmi. This news reached Lord Krishna and therefore, he abducted Rukmini from Maa Avantika Devi Temple, where she would often come to pray. When Rukmi got to know of this, he tried to intercept them. This paved the way for a war between Rukmi and Krishna's elder brother, Balram. It is said that Balram toppled the kingdom of Bishmak. After this event, the marriage between Lord Krishna and Rukmini took place in the temple of Maa Avantika Devi. During Mahabharata, Ahar became the chief town of the Pandavas after their capital at Hastinapur was washed away in a flood. Ambakeshwar Mahadev Temple, in present day Ahar, is believed to be the place where Pandavas would worship Lord Shiva. Lord Shiva, impressed with the Pandavas, granted them his blessings, and helped them in winning the war against the Kauravas.

The Archaeological Museum of Kannauj, exhibits an exhaustive collection of the ancient archaeological discoveries excavated from across the district. Ochre Coloured Pottery (OCP) dating between 2000 and 1500 BCE was found in the Jaichandra Fort in Kannauj and in Daipur village. Fragments of Painted Grey Ware and Red and Black Slipped Ware were also found, dating to 1000 BCE. Further, Northern Black Polished Grey Ware from 600 to 200 BCE was also excavated. Red Ware Pottery and terracotta sculptures dating to the Kushana and Gupta period respectively were also discovered.

*"The walls of the temple with red and white stripes indicate southern Indian management"*

According to the Kashi Khand, Vishisht, a devotee of Shiva who lived in Kashi would undertake the pilgrimage to Kedarnath every year on the Chaitra Poornima day, until infirmities of old age forced him to remain in Banaras. However, he continued to worship Shiva, who he pleased and was granted a boon. He pleaded that Shiva descend from Kedarnath and come to Kashi. Pleased with his devotion, Shiva decided to be in Kashi in a temple by the Kedar Ghat. Above the steps of the ghat is the Temple which houses the *Kedareshvaram Lingam*. The walls of the temple with red and white stripes indicate southern Indian management. This ghat becomes quite busy during the sacred month of *Shravan*, the month of the rains.

The interconnectedness of the landscape takes one by surprise. During our documentation visit to Gangotri, the sacred spot where Bhagirath is said to have practised penance to bring Ganga to earth, we witnessed the last rites of a member of the Nepalese royal family being performed. Further downriver, in Banaras, at Lalitaghat, one can see the temple built at the behest of the King of Nepal in the typical Kathmandu style, using wood and woodcarvers brought from Nepal. The temple houses an image of *Pashupateshwar*, a manifestation of Lord Shiva as Pashupatinath, as in the Kathmandu Valley.

There are several sites along the Ganga that take us back to the period of Ramayana. For instance, Bithoor, about 20 km from Kanpur is said to be the site of Valmiki's Ashram where Sita took refuge and raised Lav and Kush. After crossing Kanpur, Unnao and Rai Bareilly, Ganga reaches Shringaverpur, a significant archaeological site. This is the spot where Lord Rama crossed the Ganga while going into exile. The boatman, Nishadraj, refused to take him across until he had washed Rama's feet. "What if my boat, like Ahilya, turns into a human?" he reasoned, as a ploy to get the privilege of washing the feet of Vishnu himself. Rama gladly obliged and the Nishad community have remained eternally grateful. A little further is Pariyar where it is believed Lav and Kush captured Rama's Ashwamedha horse, leading to a confrontation between father and the twins.

The Vindhyavasini Siddha Peetha is close to Mirzapur. Combined with two other shrines of Ashtabhuji

*The Ghats at Bithoor, near Kanpur*

and Kalikhoh, this is a space extremely revered in the Vindhyanchal region. Ashtabhuji temple reminds one of Devaki and Vasudev's child, who flew away from Kamsa's hands, escaping a cruel death and prophesying the birth of Krishna. She came to be revered as a deity in the region.

Bihar Museum in Patna, besides housing the Didarganj Yakshi, also houses the Mauryan period Dancing Girl from the 3rd century BCE. This is the dancing girl, fashioned out of terracotta, found at Bulandibagh in Bihar, that has historians intrigued after the Indus Valley dancing girl. A child's smiling face in terracotta and several other inscriptions are prized possessions of the museum. A Pala period (12th century) *makara* like Gargoyle in Phylite stone, found in Munger, is the cynosure of all eyes for its refinement and visualisation.

The Patori Tehsil in Samastipur, Bihar, is well-known for the Baba Amar Singh Asthan, the pilgrimage centre for the Nishads, a social group that has traditionally been associated with river faring occupations. This location is 5 kilometres south-east of Patori Bazaar and it rose to prominence in the 16th century. According to a legend, when river Ganga flooded the region, Baba Amar Singh appeared as a *sadhu* with dreadlocks and pleaded with Goddess Ganga to let the flood waters subside, saving the people. He vanished soon after the incident, and in his honour, a temple was built. Devotees offer milk to the temple on the occasion of Ram Navami, pouring it into a hole in the temple that is devoid of an idol.

Buxar in Bihar is the place where Vishwamitra, along with 80,000 other *sadhakas,* practised penance and *yajnas*. Mayapur, about 130 km north of Kolkata on the banks of the Hooghly, is the confluence where the rivers Jalangi, and Saraswati (the hidden one) meet the Hooghly. This is sacred space for Krishna bhakti.

In Hindu mythology, River Ganga is considered a symbol of eternity and pervades art, legend, and literature. Such is the significance of the river, that several temples have come up along the Ganga. This is reflected in the Buxar district, where many temples associated with mythology are considered significant. One of the temples is the Brahmeshwarnath Temple. The other temples and structures associated with mythological and ancient period are Ahilya Devi Temple, Shri Gauri Shankar Temple, and Ramrekha Ghat. The temple of Charitravan Baikunth, in Buxar, is considered significant due to its architectural style as Dravidian style temples are uncommon in this region. The temple of Bihariji, constructed in 1825, was built by the then Maharaja of Dumraon and is dedicated to Lord Krishna, who is also referred to as *Bihari*.

Ganga begins her journey in the Himalayas with the legend of Bhagirath's penance. She reaches her ethereal destination at Ganga Sagar Island, where, in the Kapil Muni Temple is enshrined an image of Ganga with Bhagirath resting calmly in her arms, having fulfilled his service to humanity and his own ancestors. The metaphorical and real world of Mother River Ganga comes full circle in this journey.

*Ratneshwar Temple is also known as Kashi Karvat on Manikarnika Ghat, Banaras*

# Ancient Sites

## *From Material to the Spiritual*

*A reclining Vishnu at the temples of Palethi, Tehri Garhwal*

Vallabha (1478-1530), the renowned reformer and philosopher, in his Siddhantamuktavali has explained the three degrees of perception through which we may regard the Ganga: firstly as a stream of material water, secondly a stream of material water with a spiritual capability to remove sin, and thirdly as a sin-removing stream of water that is the manifestation of the divine Ganga Ma.

The transition of Ganga from the first to the second and third stage of perception is quite evident in the ancient sites, some living and others excavated lately. These sites abound in the Ganga landscape and to be able to cover them in a limited text is not possible. However, let us look at some of the more significant ones.

Often considered evidence of humanity's first artistry, prehistoric rock art still captivates people's imagination, all over the world. Associated with many different cultures, the meaning and purpose of most forms of prehistoric rock art remain shrouded in mystery. Even the most experienced archaeologists continue to ask basic questions about rock art. What clearly emerges from man's early attempts at creativity, however, is a strong connect with nature and its elements. Most simply put, rock art is artwork done on natural rock surfaces. This means it can be found on the sides or walls of caves, cliffs, sheer standing rocks, and boulders. Most of the rock art found in India is located on the sides of massive granite boulders.

Rock art in the Himalayan caves indicates reverence for the river. Caves like Lakhudiyar indicate that rivers were sacred to ancient peoples that roamed these areas.

The Indus Valley civilization that flourished in India between 2300-1800 BCE carried further into the

> *"In Devprayag, the temple of Raghunath ji, built out of huge stones, is pyramidal in form"*

Ganges Valley. Indus pottery blends found eastward along the lower reaches of the Narmada River indicate that Harappan cultures, moving in from Gujarat and Saurashtra, were brought into contact with the Ganga Valley by groups following the Chambal River north-east towards the Yamuna and by others along the Narmada into Southern Bihar. Excavations in early city states of the Ganga Valley, such as Hastinapur and Kaushambi, according to Sharma (1960), an archaeologist who worked extensively on these sites, have many prototypes like the Harappan layouts.

Seals from the period often depict interpenetrating forms. The tree, as a vegetal essence of life figures prominently in the image of the female deity that could very well be the venerated river. Object of worship are usually depicted beneath or inside a tree, and later, beneath a parasol or another canopy. This association between the female deity, reflecting veneration for the river, and the tree dates to Harappan times and is a recurring element in Indus seals, that portray a female figure in the branches of a tree. In the Indian river valley civilization artefacts like seals—the human, animal and vegetal penetrate each other—resonating a common rhythm. This depiction, perhaps, is an antecedent of the depiction of Ganga as Mother River. Through the depiction of the female figure enveloped in nature, she is no longer bound by restrictive human codes. This is the precursor of the representation of Ganga in the form of mythical beings such as *yakshis* and *gandharvas*, creatures part human, part immortal, straddling the liminal spaces between human existence and godhood.

In Devprayag, the temple of Raghunath ji, built out of huge stones, is pyramidal in form, and is capped by a white cupola. Perhaps the oldest of the Indian temples dedicated to Lord Ram, it is considered one of the 108 *divya deshams* or sacred sites of Lord Vishnu. The names of a few travellers, in Brahmi, ornamental Brahmi and Devanagri scripts are incised on a cliff face abutting the confluence. These inscriptions also bear footprints and stairs carved out of sheer stone. The script dates the temple to much before the 6th century.

Veerbhadra, near Rishikesh, is an archaeological site excavated by

*A well in Kankhal, Hardwar*

N.C. Ghosh of Archaeological Survey of India between 1973-75. The excavation brought to light remains of three cultural phases: The early phase (1st to 3rd century) represented mud brick walls, the middle phase (4th to 5th century) is marked by a floor of brickbats and remains of a Shaivite Temple. The late phase (7th to 8th century), is marked by some residential structures of burnt brickbats.

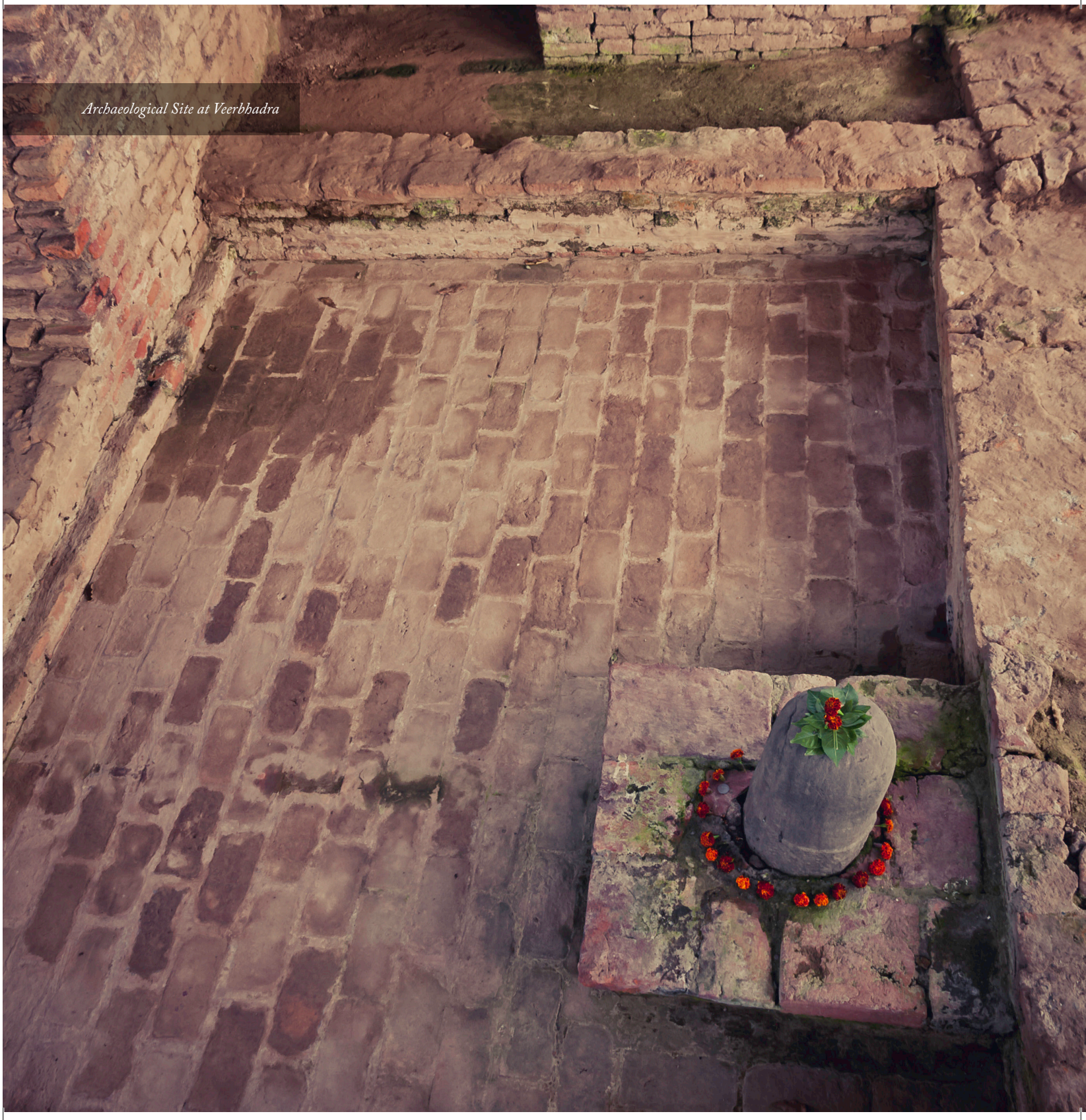
At Shringaverapura near Allahabad, there exists an extraordinary example of hydraulic engineering dating back to the end of the 1st century BCE. It comprises three percolation-cum-storage tanks, fed by an 11m wide and 5m deep canal that used to skim the floodwaters off the monsoon-swollen Ganga. Water from the canal first entered a silting chamber where the sediment settled. This relatively clean water was then directed to the first brick-lined tank, then on to another tank through a stepped inlet, which cleaned the water further. This tank constituted the primary source for the water supply. Next, the water passed to a circular tank, which had an elaborate staircase. An elaborate waste weir, consisting of seven spill channels, a crest, and a final exit, ensured that the excess water flowed back into the Ganga. This is a marvel of rain water harvesting and recharging the river, reflecting the ecological wisdom of our ancestors, a thought process that has all but vanished with the passage of time.

***"The Chausa Hoards, found in Buxar District in Bihar during the excavation of 1931, is a collection of eighteen invaluable bronze objects"***

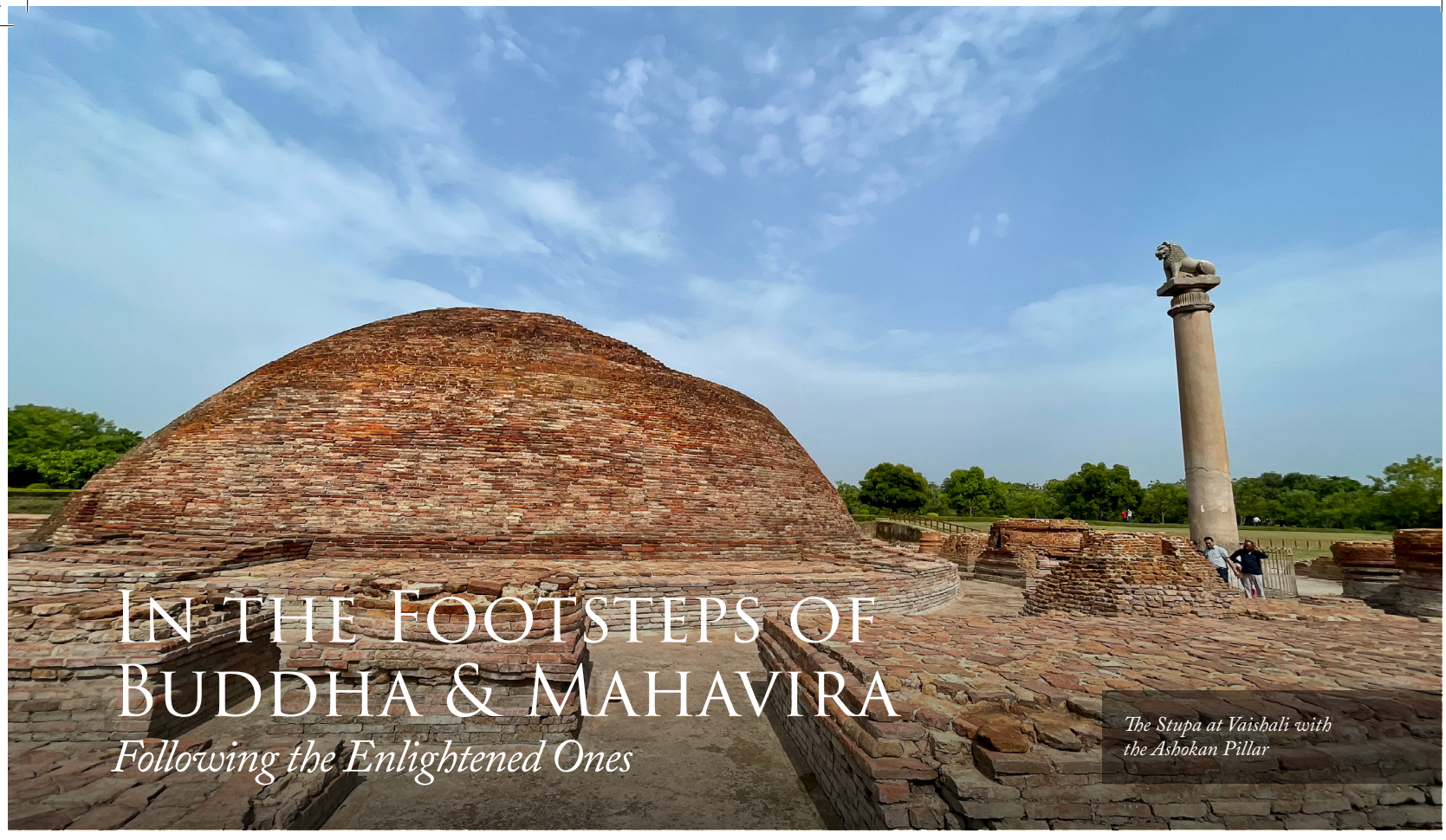
One notable aspect of architecture in Prayagraj District is that its proximity to Madhya Pradesh is evident in its temple architecture, clearly visible in the use of animal and human figures in the brackets of a structure, which is a typical architectural feature of the Gwalior and Rewa region. Construction materials and techniques also represent the neighbouring districts – such as the use of brick and white sandstone, quarried in abundance there. Temples are mostly constructed in the *Nagara* style, with dominating *shikharas* and *uru-shikharas* over the *garbha-griha*, entered through colonnaded verandas with intricate carvings, as seen in the Gangolia Shivalay Temple in Phulpur. The residences showcase a vernacular architectural style reflected by ornamental niches, brackets, *chajjas* and cornices on the façade, such as Lohia's residence in Meja tehsil.

The evidence of human activities in Joharganj, Ghazipur district, is noticed as early as the Mesolithic period but up to the second millennium BCE, human activities were confined to river banks. Recent excavations in the territory of Kashi Mahajanapada especially around Varanasi, such as excavations at Agiabir, Anai, Harihar-pur, Aktha and Ramnagar and explorations along the important tributaries of Ganga, like Varuna and Gomti, suggest that up to the beginning of 1st millennium BCE the middle Ganga plain was dotted with important human settlements of various dimensions. During the Shunga-Kushana and Gupta period the area becomes more populated as evident from the finding of a good numbers of ancient settlements along the small tributaries of Ganga such as Varuna, Gangi and Beso rivers. Explorations conducted in approximately 50 km along the Beso river brought to light 31 ancient sites. Many new settlements originated in this region and their contributions towards economic and cultural growth is significant, as at many sites we come across sculptures pertaining to the early medieval period of 9th to 10th century.

The Chausa Hoards, found in Buxar District in Bihar during the excavation of 1931, is a collection of eighteen invaluable bronze objects. The hoard included a *Dharma-chakra* standard with sixteen spokes, a *Kalpavriksha* with female figure and a few *tirthankara* images of Jain influencers like Rishabhanatha and Parsavanatha. These images have been categorized to be from 2nd century BCE to the 4th century. They are the first large group of bronzes, surviving from any period in the history of India. Presently, the images are on display in the Bihar and Patna Museum.



*Archaeological Site at Veerbhadra*



# In the Footsteps of Buddha & Mahavira

## *Following the Enlightened Ones*

*The Stupa at Vaishali with the Ashokan Pillar*

Buddha walked slowly, barefoot and mindful of each step. On bundhs between rice fields, along rivers, on dusty village paths, and on shady roadsides connecting the great cities of the time, he would be accompanied by a few of his disciples, each "leaving space between them for a cow to pass through."

Carrying only his robes, alms bowl, water filter, and needle, the Buddha visited mango groves, sat by lotus ponds. Sometimes he would sleep in the open air, sometimes in people's homes. He, along with his monastic companions, would set off each morning on an alms round, stopping silently in front of each house without expectation. Sometimes, they would be invited for meals at the home of one of the Buddha's benefactors. After the meal, he usually shared a teaching, and this was an opportunity for his lay disciples to ask questions of him.

Some two hundred years after Buddha's death, emperor Ashoka came to power. He dedicated himself to spreading Buddha's teachings. Were it not for him, it is doubtful Buddhism would survive today. Ashoka embraced the *dharma* after leading a genocidal war in Kalinga in which the death count was terrifyingly humongous. From then on, Ashoka vowed to travel only on pilgrimage, never for war and conquest. He went to many of the sites associated with the Buddha, putting up stone pillars as markers on the holy path. On some of the pillars there are inscriptions, carved in the Brahmi script, which describe how the place was associated with the Buddha and the *Sangha*. These pillars helped archaeologists of the late 19th century ascertain the authenticity and relevance of these sites.

In the Himalayas, at a spot equidistant from both Ganga and

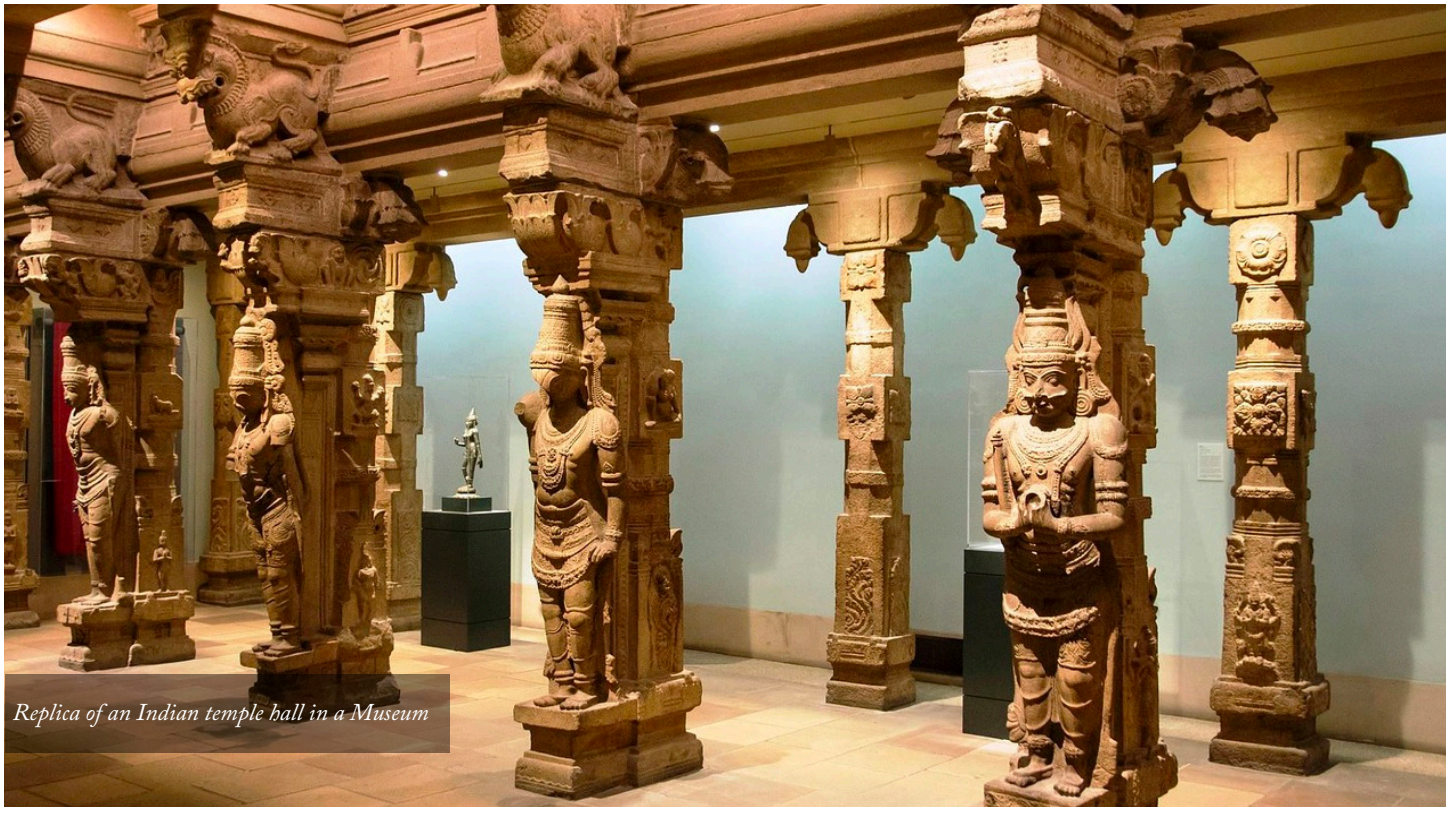
Yamuna, as the two mighty rivers descend into the valley of Dehradun, is located the Kalsi Rock Edict. The edict is significant for two reasons, one, it is the only edict talking about *Dhamma* or Buddhist principles of peace as instruments of foreign policy, and two, for its mention of the five contemporary kings from Egypt and the Hellenistic world. It is based on this edict that much of the exact dating of the Mauryan Empire has been done by historians. On the edict, inscribed in Pali, not only is the script visible, but also illustrations of an elephant describing the king as *Gajottam*, or the great sagacious elephant-like king. The elephant has always been an important symbol in Buddhism. The edict, inscribed in 3rd century BCE, has stood the test of time, and stands at the edge of the Himalaya, a space beyond which Ashoka, probably did not claim control.

There have been many great Buddhist pilgrims throughout history, some of whom have left records of the perilous journeys they undertook. Pilgrims, such as Faxian (337–422 CE) and Xuanzang (602–664 CE) came from China. They traversed the desolate Taklamakan Desert, facing everything from freezing cold to scorching winds, and then crossed the passes of the high Himalayas, finding the skeletal remains of earlier pilgrims as markers for their path. Other early pilgrims came from countries as far-flung as Korea, Japan, Tibet, Afghanistan, Bhutan, Sri Lanka, Vietnam, Thailand, Malaysia, Uzbekistan, and Greece.

*The gateway at Sanchi Stupa*

***"Kannauj came under the Nanda Empire of Magadh in 4th century BCE"***

Kannauj came under the Nanda Empire of Magadh in 4th century BCE. Subsequently, the Mauryas ruled over Kannauj from 321 BCE to 184 BCE, under Chandragupta Maurya, who died in 297 BCE. Emperor Ashoka built two stupas in Kannauj, where Buddha is believed to have given his sermons. Currently, mounds exist on the north-western and south-eastern extents of Kannauj city to mark the historic sites. The stupas find mention in the writings of Xuan Zang and Fahien (also Faxian), the former having visited Kannauj during the rule of Harshvardhana. Further investigations reveal that one of these mounds may be associated with the one near Sultan Peer Baba Mazar in the Safdarjung Mohalla. Kannauj became the capital of Raja Jaichandra, who ruled in 1170 CE. A large triangular mound exists where Jaichandra built his fort. It is located along the eastern periphery of the district, along



*Replica of an Indian temple hall in a Museum*

which Ganga flowed at the time. Traces of smaller mounds lie to the south of Jaichandra Fort which are predicted to have been a part of a massive fortification, earlier. Two distinct mounds lie towards the north of Kannauj city, in Mubarakpur settlement. These sites merit excavations.

As Buddha traversed the dusty plains of India, spreading his message, he had to cross the Ganga at a place where a small town called Pataligram grew on its banks. Between the 6th and the 4th centuries BCE, this small town grew into the great Patliputra, capital of the kingdom of Magadh, and subsequently the Maurya and Gupta empires. The city's prosperity and architectural splendour was recorded by foreign emissaries like Megasthenes from Greece and later Fahien and Xuan Zang from China. In the 6th century, a massive flood on the Sonbhadra River and subsequent Hun invasions ravaged Pataliputra. The city regained some of its glory only in the 16th century under Sher Shah Suri. The ruins of ancient Pataliputra can still be seen in Kumrahar on the eastern outskirts of Patna, where an assembly hall with 80 pillar bases was excavated. In the 5th century CE, Fahien found its pillars glistening like glass. An inscription on a Gupta period brick structure calls it Sri Arogya Vihar Bhikshusanghasya. A small red potsherd found here was inscribed as Dhanvantareh, who may have been a physician at Arogya Vihar. In fact, wooden palisades of the type excavated in Kumrahar have also been found in Lohanipur, Bahadurpur, Sandalpur, and Bulandibagh areas of Patna.

Situated about 95 km south-east of Patna is the site of Nalanda, perhaps the world's first global university. The word Nalanda roughly translates into unstoppable flow of knowledge. It grew as a Buddhist centre of learning from 427 CE to 1197 CE. Studies indicate that the university of

***"When the Buddha finally arrived, his former companions recognized him but decided not to greet him"***

Nalanda was a residential university with 10,000 students and 1510 teachers. Harshavardhana, Dharmapala, Nagarjuna, Xuan Zang, Aryabhatta were alumni. Xuan Zang travelled around India between the year of 630 and 643 CE and visited Nalanda first in 637 CE and again in year 642 CE. Tibetan sources mention the existence of a great library at Nalanda, the Dharmaganj. The biggest library in the world in its time, it connoted a mountain of knowledge, having a collection of nine hundred thousand texts and manuscripts. Attacked thrice, first by the Hunas under Mihirkula in 445-467 CE, then by Gaundas of Bengal in the 7th century, the third attack that completely annihilated the great centre of learning came from the Turkish invader Bakhtiyar Khilji in 1193 CE. Minhaj Siraj, in his book Tabaqat-i-Nasiri, mentions that it took three months to burn all the books of Nalanda. Many original manuscripts were lost forever. After Nalanda, Khilji also pillaged the other two universities of Bihar – Vikramshila and Odantapuri.

Just 10 km from Banaras lies and idyll of peace and tranquility in Sarnath, where Gautama Buddha delivered his first sermon called the *Dharmachakrapravartana* or the turning of the wheel of law. The Buddha had come here as soon as he left his place of enlightenment in Bodhgaya because he wanted to share the *dharma* with his former ascetic companions. Since Sarnath is 150 miles away from Bodhgaya, it took him a fortnight to walk there.

When the Buddha finally arrived, his former companions recognized him but decided not to greet him, as they felt he had fallen off the true path. But the luminosity of his presence was so overpowering that, despite themselves, they offered him water and a place to sit, and their scepticism fell away as they listened to the Buddha share what he had discovered. This was the first time he offered his revolutionary teachings on the middle way, the four noble truths, and the eightfold path, and it is recorded that the eldest of the ascetics, Kondanna, immediately became fully awakened.

The Buddha stayed in Sarnath for the rest of that rainy season, allowing scores of people to hear him and become his disciples. It was also here that he offered his second crucial teaching on non-self, revolutionizing the spiritual thinking of his time. When finally leaving the area, he instructed his monks to each go in a different direction in order to carry his teachings far and wide. The place was called Rishipattana at the time of Buddha, after the sages who meditated under its trees. It was here

*The Stupa at Vaishali*

that Buddha founded the *Sangha* or holy order, with his first five disciples in the 6th century BCE. A convert to Buddhism, Emperor Ashoka had many beautiful buildings and a monastery built here in the 3rd century BCE. Chinese travellers Fahien and Xuanzang mentioned 1500 monks living in the monastery here and described a 100m high stupa. Sarnath was abandoned in the 12th century, when Qutbuddin Aibak's forces ransacked it. British archaeologist Alexander Cunningham rediscovered it in 1834. The 33 m high Dhamek Stupa, an Ashoka pillar, the remains of a Gupta era brick stupa at a site called Chaukhandi, where the Buddha first met his companions, are some examples of Buddhist built heritage at Sarnath, close to the Ganga.

Lord Buddha visited Sarnath at the outskirts of Banaras in 528 BCE. He also gave his first sermon here. Therefore, many Buddhist travellers and pilgrims visited the city of Chandauli, close by, in search of Buddhist texts and teachers. Two such travellers were Xuan Zang and Fahien. Xuan Zang has also mentioned his visit to Ballia. In his travelogue, he mentions the Buddhist temple of Aviddha-Karna, situated near Ballia.

When we contemplate the Buddha's teachings in association with the places they were delivered, they acquire a deeper meaning. We experience moments of awakening that renew our faith in the practices and teachings of the Buddha. We breathe with him. We walk with him. We meet the Buddha.

## *The* First Republic

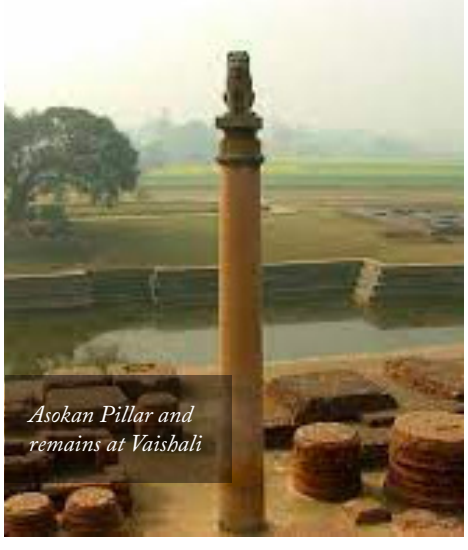
Crossing the expansive Ganga river with its sandy islands, we come to Vaishali on the east Bank of the Gandak, 45 kilometres north of Hajipur in Bihar, where the Buddha met the courtesan Amrapali and accepted a meal at her mango grove. She then gave the grove to the Buddha. It was also here that he overturned his earlier decision not to admit women and welcomed about fifty nuns into the *sangha*, led by his stepmother, Queen Maha Prajapati Gautami. A hundred years after his death, the second Buddhist council was held in Vaishali, and much later, in 1958, archaeologists found here the remains of a stupa that housed relics of the Buddha. They are now at the museum in nearby Patna. The Buddha held his last rain retreat in Vaishali, and it was during this retreat that he confided to Ananda that he would die in three months. Then they started to walk north. The people of Vaishali followed, trailing them for thirty-five miles to Kesariya. To persuade the people to go back to their homes, the Buddha stopped and gave them his alms' bowl. Today, there's a huge stupa at Kesariya, which is said to have been the model for the Borobudur stupa in Java. The ancient Kutagrashala Vihara, also known as Buddha Stupa 2, was built by the Lichchavis for Sakyamuni Buddha. An Ashokan Pillar marks the site of Buddha's last retreat at Vaishali.

The Lichchavis were the world's first republic. Today, the Magna Carta, a document that constitutes a fundamental guarantee of rights and privileges, is regarded as one of the most important symbols of liberty. It has a long and winding history, and an 800-year-old legacy. So, was it this document that laid the foundation of democracy as we know today? Western societies would like to believe so —

*Remains of Buddha relic stupa dating back to 5th Century BCE*

leaders have, time and again, invoked the charter to symbolise the struggle for justice and freedom. But much before the Magna Carta came into existence in 1215, the Indian subcontinent was already replete with several independent republics, some as old as 6th century BC.

Author Mohan Guruswamy (2015) says, "The main characteristics of these were a raja, elected or hereditary, and a deliberative assembly. These assemblies met regularly and passed laws pertaining to finances, administration, and justice...while the assemblies mostly comprised the nobility and landowners, in some cases, they included all free men." Among these was Vaishali, home of the Lichchavi clan, and today, known as the world's first republic. It is an archaeological site located in present-day Bihar. This, history says, was home to the earliest known example of a stupa. Vaishali was part of the Vajji confederacy and the 16 mahajanapadas or kingdoms of ancient India.



*Asokan Pillar and remains at Vaishali*

*Lord Mahavira's birthplace at Vaishali*

# Vaishali

Vaishali is believed to have been a densely populated, wealthy, and prosperous city during Buddha's time, and he visited Vaishali several times. According to legend, it had many pleasure grounds and lotus ponds. The city was surrounded by three walls, each one a *gávuta* apart, with watchtowers at each of the three gates. Outside the town, the *Mahavana*, a large natural forest was spread up to the Himalayas. Vaishali was located at the present Basarh Village in Vaishali District. It is believed that Buddha paid a special visit to Vaishali at a time when the city was struck by a deadly disease that was killing many of its inhabitants. When he arrived in town, the pestilence's wrath was greatly reduced, after which many of the citizens were initiated and became his disciples.

Lord Mahavira, the 24th Jain *Tirthankara*, was born in Vaishali. During his wanderings in Bihar, it is believed that Lord Mahavira took a halt and rested for a while in Bhojpur. This event was commemorated by naming the place he chose to relax at, as *Bisram*, which means rest. Sri Jain Bala temple, built in white Jaipur marble stone, is dedicated to Lord Mahavira. The mahastambha pillar in the complex marks the spot where he delivered his sermon. In 1912, the first institution for promotion of wom-

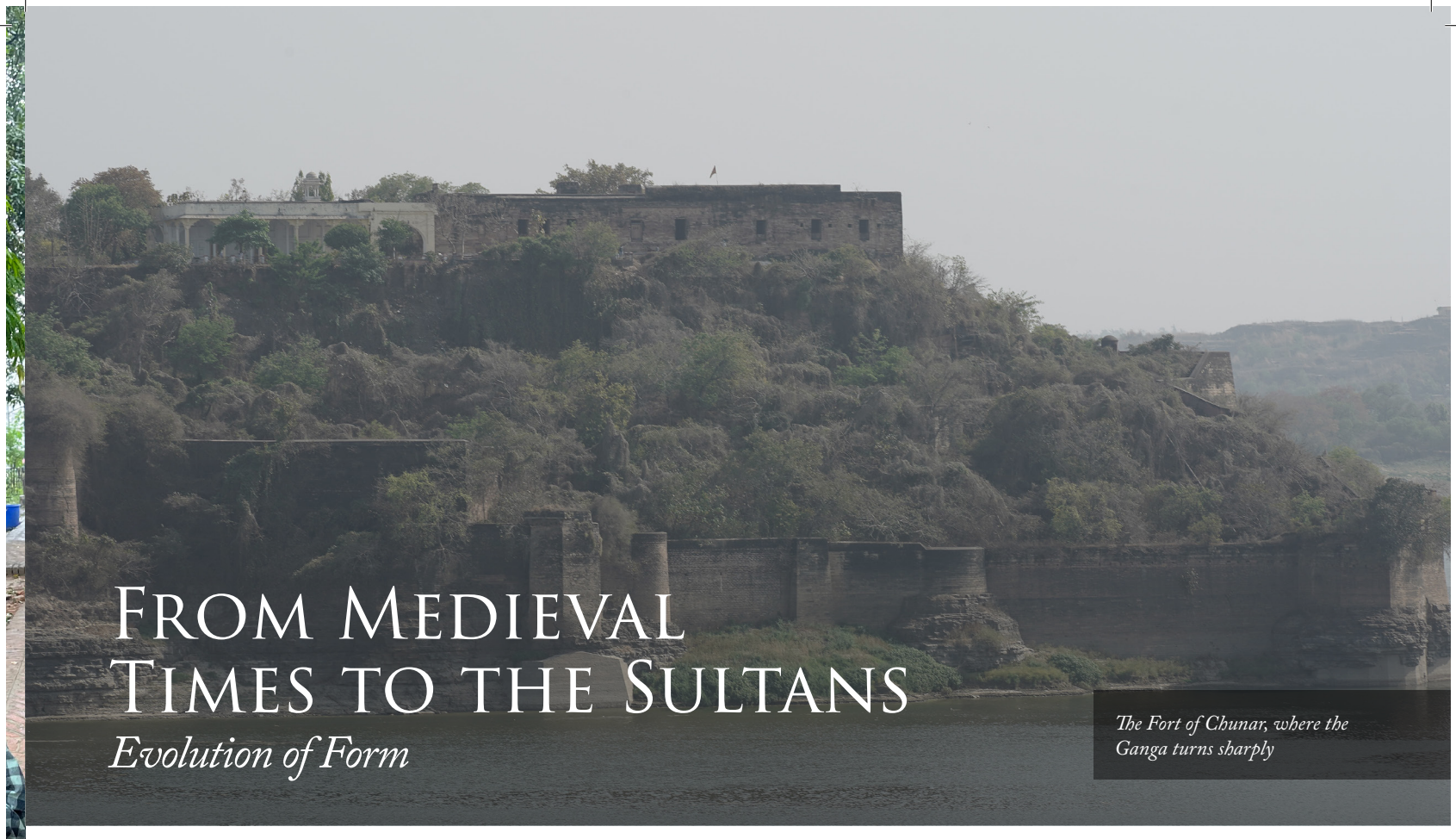
en's education was established in this complex. Due to the association of the place with Vardhamana, it is frequented by pilgrims. This has also resulted in the growth of more than forty-five Jain temples in Arrah.

In its prime, Vaishali was surrounded by three walls and gates with watch towers, with "many storeyed buildings, pinnacle houses, leisure gardens and lotus ponds". Brick, stone, mud, and wood were the main components of architecture here. After its early excavation, it was discovered that the first barrier of defence for the city was built with baked bricks; the second consisted of a massive rampart made of compact earth; and the third with bigger bricks. Over time, excavations have indicated that inhabitants of Vaishali lived on the town's eastern side, where the ground rises gradually. This enabled the population to escape annual floods, and where most ruins were later unearthed. Wells, pottery, implements and platters of stone were excavated in large numbers here. The huge mound that is today called Raja Vishal ka Garh served as a parliament for the Lichchavis all those centuries ago, with a seating capacity of seven hundred. The city is also home to the Abhishek Pushkarini, the coronation tank where the elected Lichchavi representatives were anointed.

In north India, Hastinapur in Meerut, Uttar Pradesh is also an important Jain pilgrimage site. Hastinapur Teerth Kshetra is believed to be the birthplace of 16th, 17th, and 18th *tirthankaras*, Shantinatha, Kunthunatha and Aranatha. Jains also believe that it was here in Hastinapur that the first *tirthankara*, Rishabhanatha, broke his 13-month long fast after receiving sugarcane juice (*ikshu-rasa*). Several Jain temples dot the region of Hastinapur.

***"In north India, Hastinapur in Meerut, Uttar Pradesh is also an important Jain pilgrimage site"***

*Young boy selling lotus flowers in Vaishali. Lotus symbolises the Buddha*



# From Medieval Times to the Sultans

## *Evolution of Form*

*The Fort of Chunar, where the Ganga turns sharply*

In narrow valleys, situated at some distance from the settlement of Devprayag, where the Bhagirathi and Alaknanda rivers meet to become Ganga, scattered over terraced fields amongst sparsely populated villages, lie the five east facing temples of Palethi. Through,terraced fields, walking past beautiful, abandoned Himalayan homes, their *tibaris* or doorframes carved out of wood, their roofs covered with black slate tiles locally called *pataal*, one arrives at one such beautiful stone temple. The exquisite temple, slanting precariously appears shaken but intact in its antiquity, is dedicated to Shiva, but also contains a sculpture of a reclining Vishnu. The images here point to the fact that a tradition of pilgrimage existed in the region, much before the 6th century CE. Built in the *Nagara* style, the temples of Palethi are probably the earliest in the entire Himalayan region.

Into the great plains of north India, close to the oldest mountain range of India, the Vindhyanchal, the city of Kannauj bore the brunt of the medieval kings' foray into the region of Avadh. On 20th December, 1018, Mahmud Ghazni attacked Kannauj. Rajyapal, the reigning monarch fled the wrath of the powerful marauder. Mahmud of Ghazni captured the seven forts of Kannauj along the banks of river Ganga, within a day. Thousands of temples were destroyed in the region. Once Mahmud returned to Ghazni, the Rajput princes of Kannauj, outraged by the cowardly act of Rajyapal, formed a coalition with Ganda, chief of Kalanjar. They marched into the city and reclaimed the throne. Owing to its location at the crossroads of trade and commerce, Kannauj district displays a diverse architectural landscape, showcasing multiple architectural features and

*Khusro Bagh, Allahabad*

construction techniques adopted over the years. The different building typologies spread across the district reflect the diverse political movements and settlement patterns since historic times. Influences of the Mauryas, Shungas, Kushanas, Maukharis, Guptas, Gurjara-Pratiharas, Rajputs, Afghans, Sultans of Jaunpur, Mughals, Nawabs of Farrukhabad and the British can be seen across the urban landscape. Building materials, planning, layout, and ornamental features suggest Rajputana, Islamic and British architectural styles.

In the reign of Sher Shah Suri, Todar Mal Khatri built a fort at Hetampur village within the Kannauj district. The ruins suggest the expanse of the fort to cover approximately twenty-two bighas. It lies 22 km to the north-east of Chandauli Tehsil. Todar Mal designed and constructed the fort between 14th and 15th centuries. He was in charge of the construction under Sher Shah Suri. Post the Mughals, the fort was captured by Hetam Khan, Talukdar and Jagirdar.

The invasions of Mahmud of Ghazni in 1021-30 CE opened doors to Muslim settlement in Varanasi with significant growth during the medieval times. They are an integral part of many living cultural traditions including saree weaving, dance and music. Between the 11th and 17th centuries, the city was invaded and destroyed at least four times, but its temples, *ghats*, and quarters were repeatedly revived. Varanasi thus presents tenacity in its ambition to sustain its spiritual merit through the continuation of the architectural elements which serve as representative form and space for practice. Thus, it can be deduced that Varanasi exemplifies pan-Indian religion, spirituality and culture, and these characteristics are embodied in its iconic *ghats*. This never-say-die spirit is also reflected in the city's narrow alleys and by lanes. These were made in such a manner to deter enemy columns, especially those on horseback, from entering to plunder.

In Jharkhand's Sahibganj lies Rajmahal, where the benedictions, as well as the consequences of Ganga's anger are starkly visible. A flourishing port until the late 17th century, from the fort here, Raja Man Singh, the Moghul general governed Bengal in the name of Akbar. Popular folk songs in Rajasthan talk about how he carried the Devi from Bengal to Rajasthan. Despite this, Bengal still firmly believes in the Devi because she is Ganga incarnate. When the river channels shifted, the capital was relocated to Jahangirnagar in Dacca, and Rajmahal gradually lost its significance as a centre for trade and industry. In due course, the river returned, and Shah

***"Todar Mal designed and constructed the fort between 14th and 15th centuries"***

Shuja once again shifted his capital to Rajmahal. He built the Sang-i-dalan Palace here. Mir Jumla again shifted it away. In 1863, once again the city was abandoned as the Ganga changed course. In 1880, it returned, but by then the Europeans had established other more prosperous ports further downriver. Rajmahal would soon be lost in time, and this time for long.

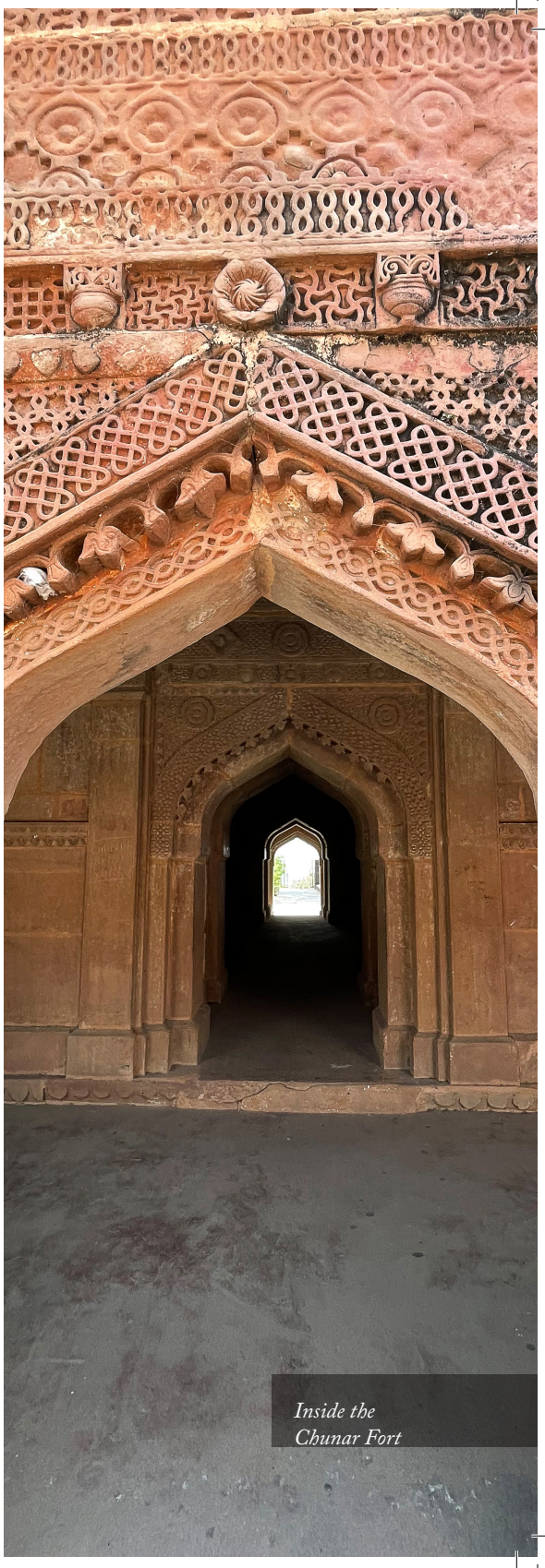
Teliagarhi stands on a plateau on the lower slope of the Rajmahal Hills, at the foot of which the Ganga formerly flowed. Owing to its strategic position, it was known as the gateway to Bengal and played a crucial role in shaping the history of Bengal from the 13th century till the 17th century. Sakrigali, derives its name from the Sakrigali Pass, lying east of Sahibganj town, at the base of a long promontory running down from the Rajmahal Hills ending at a rocky knoll which contained an ancient tomb of a Muslim Saint. Over the years the tomb has been altered. Sakrigali Ghat was also an important port before the construction of the Farakka Barrage. Sakrigali was one of the busiest trading posts of 17th century Rajmahal.

In the Bhojpur region of Bihar, temple architecture of Shri Ranganath Bhagwan Badi Mandir, begins to show influences of Dravidian architecture. The temple comprises *gopuram, ardha-mandapa, mandapa,* two *garbha grihas* and *parikrama* path. This temple belongs to Gundi village's settlement, which has developed and evolved in the region during the period of last two centuries. As temples bearing the South Indian style are rare in Bihar, the Shri Ranganath Bhagwan Badi Mandir gains significance. Pokhara, in the Bhojpur region is another remarkable site located in the forested regions. The structure is rectangular in plan with steps leading towards the water. Pokhara is a water body sourced from seven springs. It has a high religious significance, as it is visited by many during Chhath Puja festival.

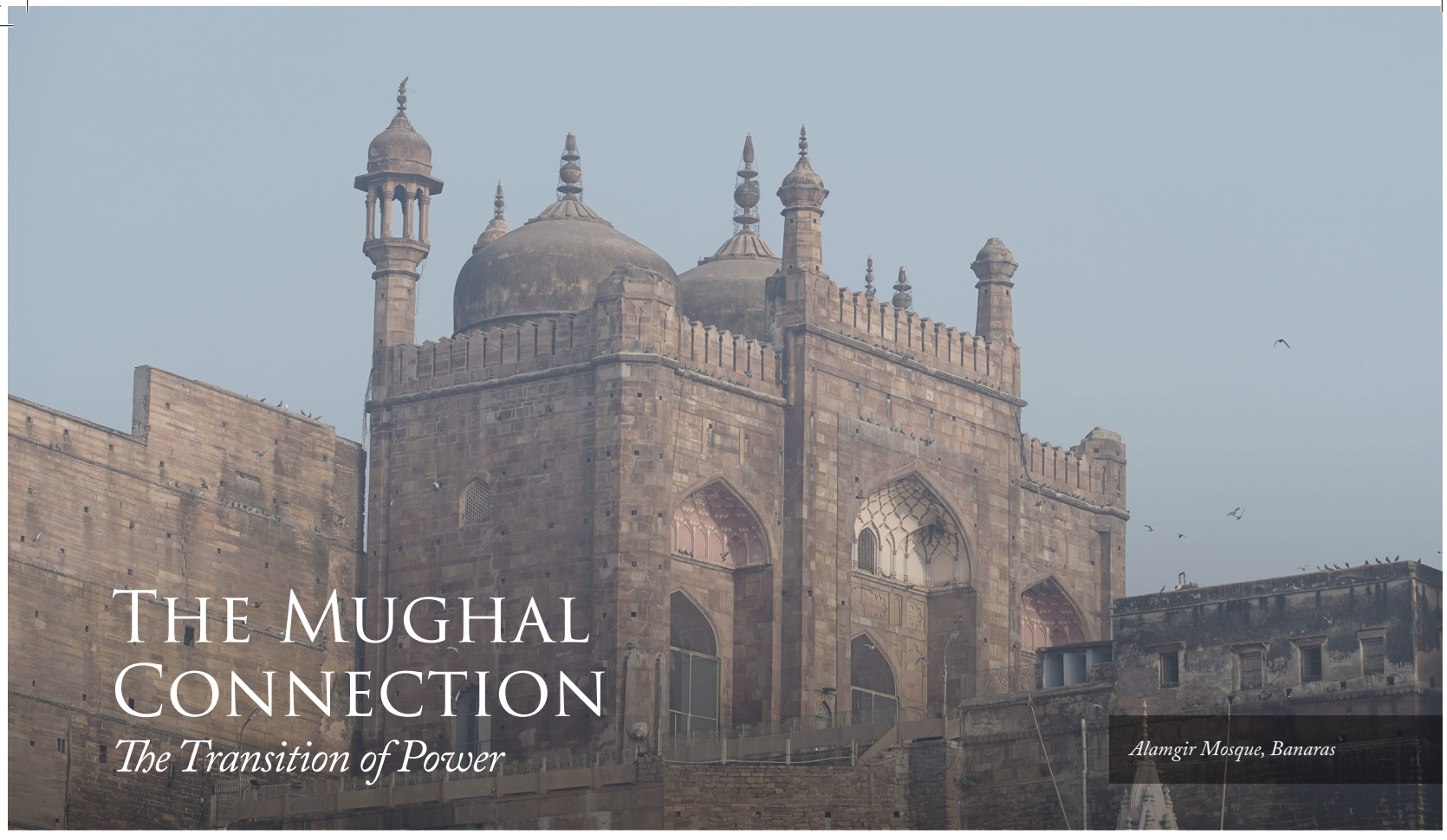
In the city of Munger, situated along the river is the Munger Fort, which dates to the reign of the medieval Delhi Sultans. They, and the Mughals held the fort alternatively for a long time, until 1762, when the Nawab of Bengal, Mir Qasim, shifted his capital from Munger to Murshidabad.

In Bihar in 1193, Bakhtiyar Khilji, along with Khusro Khan, under the reign of Mohammad Ghori, destroyed the Nalanda University along with other Buddhist sites in Bihar and Bengal. He then ruled Bengal, then including Bihar, and is said to have founded the city of Bakhtiyarpur. Khusro Khan founded Khusropur which shares its southern boundary with Nalanda District. Downriver, lies the Ajgaibnath Temple. Shiva, *Aja* or unborn, was concealed here, until the *lingam* was found by a saint named Harnath Bharati in the 15th century CE, hence the name. The island is well known for the site called *Fakeer's* Rock.

Following the Bhagirathi into Nadia district, neighbouring Burdwan, and docking at Nabadweep or Nine Islands, we come to the capital of Bengal under the medieval king Lakshmana Sena. It was captured by Bakhtiyar Khilji in 1202 and this paved the way for the Muslim conquest of Bengal.



*Inside the Chunar Fort*



# The Mughal Connection

## *The Transition of Power*

*Alamgir Mosque, Banaras*

In the Mughal period too, Ganga remained the main artery for trade and commerce into India through the Bay of Bengal. Therefore, the Mughal period experienced frantic building activity along the entire stem of the Ganga.

Raja Nain Singh was a notable Gurjar king of Meerut in the 18th century. He established the settlement of Behsuma and built *havelis*. Two distinct typologies are seen, as in the private residences (Raja Nain Singh ki Haveli) and the community space (Diwan Khana). The single-storey structures are entered through a double-height gateway with a *naubat-khana* above. The gateways comprise multifoliate arches, adorned with decorative niches and a *chajja* supported on ornamental brackets. The residences are built in lakhori brick, following courtyard planning. The courtyard in Diwan Khana is segregated into two, as per functionality. The one facing the gateway was used for social gatherings and the one surrounded by habitable rooms was used as a private space. The veranda surrounding the courtyard comprises multifoliate arches resting on double-columns on a single base.

In the district of Chandauli, the trade routes between Calcutta and Delhi had become so well established that the township of Mughalsarai soon came up. Mughalsarai was later to become a significant railway junction. The oldest building within the region, the ruins of the forts along Baluwa, dates to the 15th century.

Kannauj remained one of the most historically vibrant districts along the Ganga during Mughal times. During Shah Jahan's rule, Kannauj was administered by Nawab Dalel Singh. He built a tomb complex dedicated to his tutor, Muhammad Kabir, commonly known as Bala Peer and his

son, Muhammad Mehdi. The tomb complex is situated on the west of Jaichandra Fort. Soon after, in 1683, Sayyid Muhammad Kanauji established Sarai Miran, a caravanserai, and a military camping ground, along the Grand Trunk Road, in the southern outskirts of Kannauj city. Presently, the serai complex and its surrounding area is known as Sarai Mohalla, and is encroached upon by residential settlements, interspersed with civic and administrative buildings. Kanauji built the Rang Mahal, a leisure garden, located on the west of Jaichandra Fort, near Ajaypal Temple. Only a part of the bastion wall, with a *dargah* on one corner, presently exists. Eventually, the tomb of Sayyid Muhammad Kanauji was built near Rang Mahal, and his son's tomb was built adjacent to the serai complex.

Over the years, in Kannauj, the Ganga has shifted its course eastward. Kannauj also lay along the Silk Route, and therefore, several saints and pilgrims travelled along the ancient routes and rested in Kannauj city. Over the years, tombs were built over the graves of the saints who were worshipped by the Muslim settlements in the district. Several *rauzas* are built within the city and its outskirts. The graves are covered with an octagonal or square planned structure, topped by a large dome. Each façade is adorned with ornamental blind arches. The *rauzas* are built in lakhori brick, often on a mound. Al-Kutubalpur Rauza, along the Grand Trunk Road, is a typical example of the *rauzas* in Kannauj.

Makhdum Jahaniya Tombs were discovered in late 15th century, during the reign of the Sultans of Jaunpur. The tombs are located on a high mound, which was earlier occupied by artisans. The complex is located on a high plinth, with bastions on the corners. It is entered through a gateway, approached by a flight of stairs, comprising a doorway recessed within a Tudor arch. The arch is ornamented with intricate carvings. Decorative brackets support the entrance door. It leads to an open courtyard with the Jahaniya tomb in front and two tombs belonging to male members on the right-hand side. Bawan Khamba lies to the left of Jahaniya tomb. The tombs exhibit a similar architectural style. It comprises a square structure topped by a dome supported on an octagonal dome, with *chattris* on each corner. The entrance door is supported on ornamental arches and topped by a *chajja*. The mosque comprises

*Mughal Art is Rich in Floral Designs*

***"Over the years, in Kannauj, the Ganga has shifted its course eastward"***

*The magnificent but neglected ghats at Mirzapur*

fifty-two decorative columns, with a dome in the centre. The *mihrab* wall is intricately ornamented and carved. The complex overlooks Kannauj city, with the Bala Peer tombs visible at a distance.

Sayyid Muhammad Kanauji was a renowned saint patronised by Shah Jahan. The saint was also the tutor of his son, Aurangzeb. He established a serai complex in 1683, towards the south-eastern part of Kannauj city. They were traveling along the Grand Trunk road. The complex is square in plan, enclosed within a lakhori brick wall with bastions on each corner. The complex is entered through a northern gateway which leads to the Grand Trunk Road towards the north. The gateway is adorned with massive arches, ornamental *jharokhas*, decorative niches and intricate carvings. An old mosque with three domes is built in the centre of the complex.

In the 16th century, Mughal Emperor Akbar built his fort on the north Bank of the Yamuna, near its confluence with Ganga at Allahabad. Later, his son Jahangir, then known as Salim, stationed himself at this fort when he rebelled against his own father. It was Akbar who named the city as Allahabad, which in Persian means City of God. Another vestige of the Mughal era in Allahabad is the Khusro Bagh, built by Khusro, the eldest son of Jehangir, whose attempts to assassinate his father led him to being blinded and imprisoned for treachery. The book Allahabad: Where the Rivers Meet, by Neelam Saran Gour (2009) notes that the fort was "built entirely of stones hewn from rocks on the bank of the river Ganga".

In the holy city of Banaras, on the Panchganga Ghat stands the imposing 17th century Alamgir Mosque built by Aurangzeb on the ruins of the Bindumadhav Temple, which he razed to the ground. This imposing mosque has towering minarets that offer a birds' eye view of the entire Ganga landscape around Banaras. Aurangzeb's Gyanvapi Mosque, also built in

the 17th century stands across a wall, cheek by jowl with the Kashi Vishwanath Temple. Gyanvapi gets its name from the well of wisdom that resides within the temple complex.

Across Tulsi Ghat, four kilometres from Banaras lies the Ramnagar Fort. The fort was built in 1750 by Raja Balwant Singh in the Mughal style and continues to be the residence of the present kings of Kashi. The Vidya Mandir Museum, inside the fort's Durbar Hall is a repository of regalia, with a gold lotus shaped palanquin, ornate hookahs, solid silver howdahs, animal jewellery, medieval costumes, and a broad range of ancient armoury. Saraswati Bhawan, in the fort, houses a rare collection of manuscripts, including a handwritten one by Goswami Tulsi Das.

In 1592, Akbar's general Raja Mansingh declared Raj Mahal, situated in the Sahibganj District in Jharkhand, the capital of the Bengal *subah* and renamed it as Akbarnagar. He also built a fort and a Jama Masjid here. The Grand Mosque remains impressive to this day. In 1639, Shah Shuja, Shahjahan's second son, built a lavish palace and pavilion, the *Sang-i-Dalaan* or the Hall of Stone. The palace offers stunning views of the river. The town's police station is built over a medieval hall near Sang-i-Dalaan. Legend has it that mounted horsemen hid in this hall, and when given the signal, would race through its arched hallways to descend as if by magic on their unwary enemies.

The Jami Masjid in Mangalhat built by Raja Man Singh in the late 16th century, is the largest mosque of the region measuring 77m by 65m. Catherine Asher (2006) writes that unlike other mosques in Eastern India, belonging to the same period which were of single aisled three bay type, the Rajmahal Jami Mosque resembles earlier Mughal mosques like Babur's Mosque at Panipat. A central corridor with a vaulted roof is flanked on either side by multi-aisled side wings topped by a dome. There are also end chambers resembling Akbar's Jami Mosque at Fatehpur Sikri. The scale and typology of the mosque not built in a regional style indicates that it was meant to be a statement of Mughal imperial presence in Bengal.

Buxar district was occupied by the Mughals in the 16th century. Settlements began to develop in this region as the district came under the Rohtas Division, an important region during the Mughal period. Most of the settlements in the region have old mosques. The mosques can be distinguished by elaborate gateways, which open to the courtyard or *sahn*. The *sahn* is usually a rectangular space, adjoining which is the built structure. Most of the mosques found in this region have a veranda and prayer hall. The prayer hall consists of a Qibla wall, the wall opposite to the entrance, and is divided into different naves. The portion of the Qibla wall, which borders the central nave area, houses the *mihrab*.

*Catching up with the news under a Mughal Arch at the Ghats, Patna*

# The Sufi Way

## *Bridging the Divide*

*The magnificent Chinsurah Imambada*

The Piran Kaliyar Dargah in Roorkee, near Hardwar, witnesses examples of communal harmony every day. Though Hindus also revere and visit the *dargah* of the 13th century Sufi saint Alauddin Ali Sabir Kalyari, followers of the Islamic faith constitute a greater number of the saint's devotees. Most of the Muslim devotees visiting this *dargah* also earn spiritual merit by bathing in the waters of the holy river Ganga flowing in the Ganga Canal, close to the *dargah*. While in the nearby city of Hardwar on the banks of the Ganga different aspects of the Sanatan Dharma are practised with the Ganga river playing a central role, in close proximity, at Piran Kaliyar, the water of the Ganga is venerated for its spiritual power by Muslim devotees visiting the Sufi saint's shrine. The dargah honours the memory of the 13th century Sufi saint and mystic Hazrat Alaudin Sabir Kaliyari. It was built by Ibrahim Lodhi in the 16th century. The *Quazi* of the shrine quotes the book of Maulana Kasim which states that the water of Ganga never gets spoiled even when stored for long. He has compared the water of the Ganga to the holy Zamzam water of Mecca. It is stated that Maulana Kasim had attained his enlightenment or *basharat* at Gaumukh, where the Ganga originates in Uttarkashi district, ahead of Gangotri. Piran Kaliyar, located on the outskirts of Roorkee city, is famed for its mystical powers of fulfilling the desires of devotees.

With this snippet of how the Sufi faith evolved around the Ganga, we can embark on a journey to understand the Sufi architectural heritage along the sacred river.

In Kannauj, Sarai Miran or present-day Sarai Mohalla in the south-eastern outskirts of Kannauj city was established by a Sufi Scholar,

*"The book of Maulana Kasim states that the water of Ganga never gets spoiled even when stored for long"*

Sayyid Muhammad Qanauji, during Shah Jahan's rule. While traveling along the Grand Trunk Road, he built the serai complex here, as it earlier lay near Ganga. His *rauza* exists in the Kannauj city centre. His son was buried in a garden to the east of the serai complex. Qanauji's Rauza is square in plan topped by a dome. The *chattris* on each corner of the structure have dilapidated over time. It is located on a high mound, built in lakhori brick with stone facing. Each face comprises a Tudor arch opening recessed within a large multifoliate arch. Qanauji's son's *rauza* is also square in plan, built in lakhori brick with stone facing. Tudor arched openings lie within large multifoliate arches on each side. The larger arch is ornamented with *muqarnas*. The parapet comprises a *bangladhar* roof over the central part of the elevation with a small dome on either side. The *chajja* over each side follows the profile of the parapet wall. Both the *rauzas* contain intricate paintings in the interiors, which have deteriorated over time.

During Shah Jahan's rule, Kannauj was administered by Nawab Dalel Singh. The Nawab and his brother were tutored by Saint Sheikh Kabir, commonly known as Bala Peer. The Peer, along with his son, Sheikh Mehdi, were buried in Kannauj. The tombs are identical, built on a high plinth, approached through a gateway. They comprise a larger gateway towards the east, with the Shahi Masjid to the north of this gateway. The western tomb is larger than the eastern one, and thus, associated with Bala Peer. As per the inscriptions on the tomb, Bala Peer died in 1644, and his tomb was built in 1666. The square planned tombs are constructed in lakhori brick with sandstone facia. Both the tombs are entered from the south, through a multifoliate arch with intricately carved wooden doors. It is topped by an ornamental *chajja* supported on decorative brackets, with a band comprising floral carvings above. The tombs comprise a battlement-like parapet wall, with each element comprising floral carvings. Square-shaped *chattris* with small domes adorn each corner of the tomb. A large central dome rests over the grave, resting on an octagonal drum. The inner walls comprise of delicate floral paintings, and decorative squinches, with *muqarna* like ornamentation.

Kannauj was visited by several Sufi saints and philosophers who meditated along the banks of the sacred river. The *mazars* were also built for zamindars who settled in the region during the Mughal era. As the Muslim settlements expanded across the district, along the riverbank, *dargahs* and *mazars* were built. These structures were worshiped by the locals. Dargah

*Qawwali performance*

*Piran Kaliyar Sharif Dargah at Roorkee*

Hazi Shareef was built for the saint who was the *murshid* of the saint worshipped in Ajmer Shareef. Another ancient *dargah* is built in the north-west of Kannauj city which lies near an ancient mound associated with Lord Buddha. The *dargah* in Tatkale Shareef in the southern part of Kannauj district is renowned in the region after the saint who witnessed the moon split in half. The *dargah* dates to the 8th century. These structures are mostly square in plan, with the cenotaph in the centre. The structure is like a pavilion with a dome resting on rectangular or circular columns. Habibullah Shah Mazaar in Kannauj city belongs to a zamindar who settled during Aurangzeb's reign. It is an extravagant tomb built adjacent to a mosque which was constructed by the zamindar. The tomb is square in plan with a dome above. The façade is intricately ornamented with multifoliate arches, decorative niches, and floral carvings. The inner walls are adorned with floral paintings, with decorative squinches above.

In Rajmahal, the Pir Dargah is situated above a hillock by the river Ganga like many other *Pirs* for Muhammedan Saints in the Bengal and Bihar region. The grave of the Saint is placed in an open to sky walled courtyard. Each side of the courtyard has a large central arched niche flanked by a smaller niche on either side. The arches resemble Sultanate style architecture. Maina Bibi's Mazaar, an 18th century tomb, rectangular in plan with four octagonal turrets at the four corners of the building, three pointed arches on its façade and a central dome can also be seen here.

The Choti Dargah at Maner, Patna, was frequently visited by several artisans and poets who travelled for the Sonepur Mela. The town was also visited by several Sufi saints who travelled along the Grand Trunk Road, laid by Sher Shah Suri. Historic markets were held along the route, near the riverbank. Even today vegetable *mandis* are spread along the streets. Fatuha/Phatuha in Patna was named after the Patwa community, *pat* meaning thread. It became a thriving centre for production and trade of textiles. It was also a famous site amongst the Sufi saints who used to travel around Bihar along the river Ganga. Thus, the famous Sufi dargah, Kachhi Dargah and Pakki Dargah, were built in Fatuha.

In Samastipur, the tehsil of Mohiuddinnagar, formerly known as Sheher Darhara, gets its current name from Shah Afaq Mohiuddin, a Sufi saint and a descendant of Shah Qasim Suleiman of Chunar. The tehsil is rich in Mughal history, with the ruins of many historic buildings such as Shah Muhammad Munowaruddin's tomb, Hazrat Sarwar Shah's *Khankah*, and an Iranian-style mosque built in 1497. Ayesha Biwi Fort, also known as Mohiuddinagar Fort, is a heritage site which is now in ruins. Within its walls is Fansighar, a place where criminals were hanged to death.

A paper by Sudipta Sen (ibid.) mentions legends surrounding the enigmatic figure of Zafar Khan Ghazi, whose tomb still stands at Tribeni in West Bengal, India, a major Hindu pilgrimage spot on the River Ganga. Zafar Khan has been seen variously as the spearhead of the Turkish conquest in late thirteenth-century Bengal, a harbinger of early Islam, and a found-

er of one of the first Sufi lineages in the region. It illustrates the conflicted nature of the *ghazi* peer figure, idealized as a Muslim warrior and martyr, but also remembered as a champion of the poor, a composer of odes to the river Ganga in Sanskrit, and a historical bridge between Muslims and Hindus. Examining the architecture of Zafar Khan's mosque and tomb built on the ruins of a Vishnu temple, along with iconic portrayals of the *gaaji* in contemporary Bengali mangalakaabya verse poetry, the paper locates Zafar Khan as an interstitial and contradictory figure at the margins of what is commonly understood as Hindu devotional worship and iconoclastic Islam. The author quotes from popular poetry in the region to underline the respect with which Ganga waters were treated. For instance, one of the oldest Bengali Shia texts, has this praise for the Ghazi (Chattopadhyaya 1962, 161):

On the quays of Tribeni pay respect to Daraf Khan whose water for *wazu* (ritual ablutions) came from the river Ganga.

And the following lines in simple Bengali rhyme attributed to the resident poet of Shantipur, Mahiuddin Ostagar, run thus (Ghosh 1957, 490):

*jāphar khān gājī roila tribenī sthāne*
*gaṅgā jāre dekhā dila ḍāka śuni kāne*

Jafar Khan was the Ghazi in the place called Tribeni. Ganga, it is said, revealed herself to him after having heard his call.

*A Mystic Aura prevails in the interiors of the Imambada at Chinsurah, West Bengal*

*Crossing the river at Lakshman Jhula*

# Bridges, Barrages & Ports

## *Shift in Eminence*

Sher Shah Suri rebuilt the Uttarapath, the Sadak-e-Azam or the Grand Trunk Road, which existed during the Mauryan Empire, extending from the mouth of the Ganges to the north-western frontier of the Empire. The purpose behind rebuilding and extending this 2,700 km road, today almost 2,000 years old, was to link the remote provinces of his vast empire for administrative and military reasons. Apart from this, he constructed the road from Agra to Jodhpur and the Chittoor Fort, the road from Agra to Burhanpur and the road from Lahore to Multan. About 1700 serais were constructed along these roads. Each serai had a well and a mosque. Seminaries and schools were attached to each mosque of the serai, giving people opportunities to gain an education. Each serai had a physician or hakeem attached to it, assigned to treat the local population and the travellers. These serais also served as *Dak Chaukis* or postal points. These serais were veritable arteries of the empire. Soon, a postal system was also introduced through the establishment of *kos-minars* or postal towers along the major routes. While investing in roads, Sher Shah Suri, realising the significance of navigation, diversified his military and strengthened the Navy. Military boats remained a significant part of his military campaigns. On one occasion he used 300 military boats for his campaign in Bengal. His love for the waters was such that when he decided to build a tomb for his own burial at Sasaram in Bihar, close to the greatest southern tributary of the Ganga, the Son, he did not give any surface access. The tomb could only be approached on a boat!

However, little would he have realised that his attention to road building and provision of facilities,

*The Rabindra Setu (Howrah Bridge) at Howrah, West Bengal*

especially along the Grand Trunk Road, which would soon become one of the world's busiest trade routes, would seriously impact the pre-eminent position occupied by the Ganga as the main artery for transport into the heart of India through the Bay of Bengal. Gradually, surface transport would take over river transport systems in India, and the Ganga would transform from sacred goddess to natural resource.

Tehri Dam and Hydro Power Plant is perhaps the most visible example of this shift. The Tehri Dam is a 260.5-metre-high earth and rockfill dam over the Bhagirathi River in the upper Himalayas. With a capacity of 1000 megawatts and a drop of 220 metres, it is the highest dam in India. With the building of this dam, the first phase of which was completed in 2006, the town of Tehri, which once overlooked the confluence of Bhagirathi with Bhilangana, was submerged. The inhabitants were relocated to New Tehri, 75 km from Rishikesh and Dehradun. The town may have long gone, but the hurt of losing the cultural capital of the Garhwal Himalayas still haunts many. As many as fifty large and small dams are still being built or proposed over the Ganga in the Himalayas.

From a log crossing a stream to a road linking continents, the bridge is a structure embedded in our daily lives. Though its form and design has changed over the centuries, its function remains one of connecting two points for a purpose; be it one of mere social convenience, economic necessity, for conquest or technological showmanship. Bridges physically and symbolically connect places, communities, and cultures; they remind us of division while at the same time providing the means for unification. Fought on and fought over, bridges are strategic markers in the landscape and in our own lives. Crossing over, or under a bridge carries a symbolism of passage and transition and in real terms marks a change in environment and perspective. In their history, bridges have been built of a wide variety of materials, in all shapes and sizes, and are emblematic of technological advance. But they also reflect shifting socio-cultural preferences in art, architecture and design and reflect the identities of the communities and places they bring together along their spans. It is the role of bridges in the human imagination that adds significantly to their value as important and remarkable objects in the landscape.

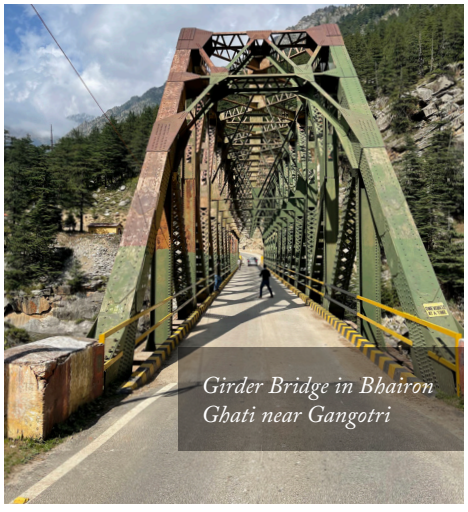
In the Uttarakhand Himalaya, where Ganga begins its journey to the bay, several bridges exist not only as physical structures connecting

***"From a log crossing a stream to a road linking continents, the bridge is a structure embedded in our daily lives"***

*Suspension bridge near Devprayag – Many bridges date to the 19th century and are still in service although being replaced by new bridges for heavy traffic*

places and cultures but also as symbolic and metaphorical markers in the landscape. In the Himalayas, steel cable suspension bridges hold multiple meanings for different social groups. These bridges were introduced by the British, to connect remote mountain villages with the roads they had built. For the colonial rulers who came into these mountains around 1815, intensive road and bridge building was necessitated by the need to protect borders and trade routes to Tibet, and the Silk Route beyond. These bridges, quite often, for inaccessible social groups living in the mountains, are the only link to the rest of the world. For tourists and pilgrims visiting the Himalayas, though, more than their utility, suspension cable bridges add to the beauty of the landscape. But, the suspension bridges, beautiful as they may appear as relics of the past, catered to needs in times when people walked, since they are narrow and frail, allowing only a few to cross at a time. Himalayan rivers swell during the Monsoon, their torrents often washing away bridges, severing this critical connection, often leading to public outcry for more permanent solutions to the connectivity conundrum. They often demand new bridges that can also allow for motor transport. For the public works' bodies, perhaps the most convenient solution is to replace the suspension cable bridges with concrete bridges, that severely compromise on the aesthetics. The traditional wire bridges, only amenable to walking across, increasingly do not fit into the discourses of economic growth that the populations in the sub-continent crave for. A suspension bridge is a type of bridge in which the deck (the load-bearing portion) is hung below suspension cables on vertical suspenders. The first examples of this type of bridge, in contemporary times, were built in the early 19th century. Simple suspension bridges, which lack vertical suspenders, have a long history in many mountainous parts of the world. The earliest suspension bridges were ropes slung across a chasm, with a deck possibly at the same level or hung below the ropes such that the rope had a catenary shape.

***"The earliest suspension bridges were ropes slung across a chasm, with a deck possibly at the same level"***



*Girder Bridge in Bhairon Ghati near Gangotri*

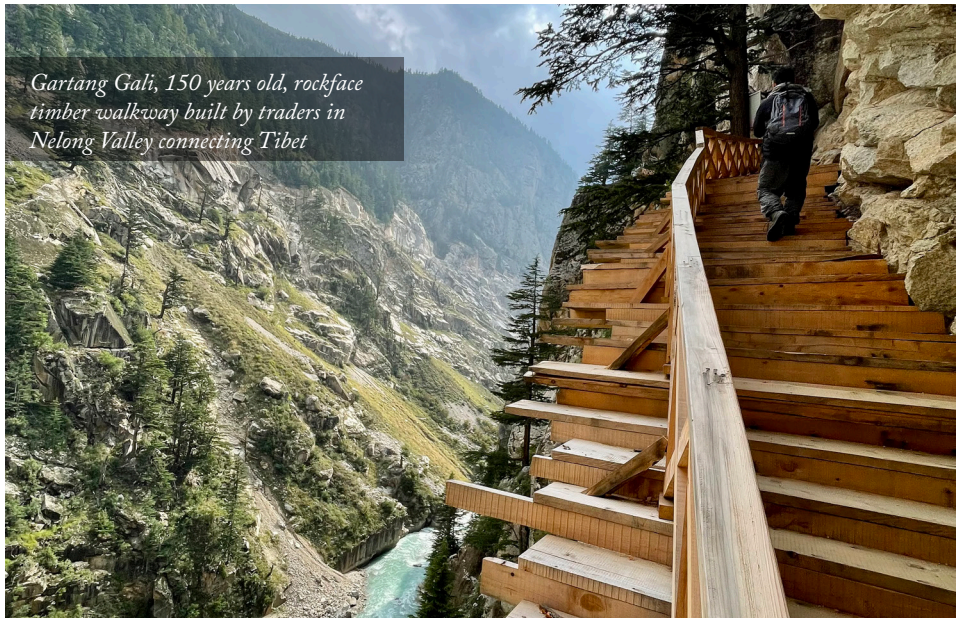
# Suspended Beliefs

The hill districts of Uttarakhand are richly endowed with heritage suspended bridges. They are not only convenient crossovers, but also add substantially to the landscape. In the early 20th century, one could find a *jhula-pul* or rope bridge at quite a few places in the Himalayas. They were once the only means of crossing the rivers. Ram Jhula and Lakshman Jhula across the river Ganges in Rishikesh are iron suspension bridges. Both bridges are similar in design, connecting Tehri Garhwal district to Pauri Garhwal district and iconic landmarks of Rishikesh. First to be built was Laxman Jhula which the British commissioned in 1939. It lies on the old pilgrimage route to Badrinath and Kedarnath. Ram Jhula is at Muni-ki-Reti, two kilometres downstream. Another suspension bridge has been added further downstream on this stretch and is known as Janaki Setu.

Ganga and its many benedictions have given rise to several empires of the past. One of the earliest capitals on the banks of the Ganga was Hastinapur, of the Kuru kingdom (1200 to 850 BCE), before the river shifted eastward, leaving the city behind. Jain texts named Kampilya, now around Farrukhabad in Uttar Pradesh, Varanasi, and Champa in Eastern Bihar among India's ancient capitals along the Ganga. Patliputra near Patna grew to be the powerful nucleus of several dynasties from the late Magadh, Nanda, Maurya, to the Gupta periods. These kingdoms prospered not only from rich harvests of the Gangetic plains but also through revenues born of trade on the river. Cargoes of grain, textiles and spices travelled both inland on the Ganga and out to foreign shores via the maritime port of Tamralipti, present-day Tamluk in West Bengal. In fact, it was from Tamralipti that Emperor Ashoka dispatched his son Mahendra and daughter Sanghamitra to Ceylon or Sri Lanka to preach Buddhism to its people.

Sutta Pitaka, the second part of the Tripitaka, the Pali Cannon, recalls foreign trade from 5th century BCE, when ships carried little birds to help make landfall. Stephen Darian (ibid.) writes, "In Buddhist times…a fairly extensive network of highways linking the main Ganges ports with each other and with other major cities must have heightened even further the Ganges' value for trade by making it accessible from the hinterland."

Several *ghats* of Patna are named after the produce which transactioned through them. Thus, there is *adrak ghat, mirchi ghat, patthar ghat, gai ghat* amongst others.



*Gartang Gali, 150 years old, rockface timber walkway built by traders in Nelong Valley connecting Tibet*

*Two rail bridges in Chinsurah*

# Enter *the* Colonials

By the middle of the first millennium CE, the commercial opportunities presented by the river were grasped by intrepid Europeans who reached into the heart of India through her vein. They came as traders and stayed on as settlers. Among the earliest to stake their claim were the Portuguese in Bengal. They established a trading post first in Chittagong (now in Bangladesh) in 1528, and later at Saptagram or Satgaon, on the western Bank of the River Hooghly in 1535. They were followed by the Dutch with their settlement at Chinsurah in 1635; the British at Calcutta, now Kolkata, in 1690; the French at Chandannagore (Chandannagar) in 1697; and the Danes in Serampore (Srirampur) in 1755. Their commercial factories turned into forts, and forts grew into towns where science, industry and civic systems were seeded to subjugate a sub-continent. But it was eventually the British imprint that remained, its stamp of authority and ideology spreading from Calcutta, its capital city, to the rest of the subcontinent, exploiting its resources.

One little known spot along the Ganga, in the colonial scheme of things was Mokammeh Ghat. Mokammeh Ghat is situated on the south bank of the Ganges, about ninety kilometres away from Patna in Bihar. The name of the place comes from *muqam* or resting place. Folk ballads of Reshma and Chuharmal are sung here, memorializing the tragic love story of two people from different castes. Mokama was the first of the Patna towns to be invaded by the British coming from Calcutta. They built some defense structures to mark their rule. It was from here that they first started trade from Bengal through the waterways. As the railways were built, the Mokammeh Ghat junction became the most well-connected station with the important cities of North and East India. Jim Corbett, hunter turned conservationist, after whom India's best known tiger reserve is named, first become a transhipment Inspector for the Bengal and North-western Railway at Mokammeh Ghat when he was all of eighteen years. He spent twenty-one years here, working with hundreds of simple, loyal, and hard-working labourers. Most of the stories in his well-known book, My India (1952), revolve around the period he spent in Mokammeh Ghat. He talks of his struggle to establish a school, the caste run-ins and of course, the significance of Ganga waters and how it was carried to the hinterland from the Ghats. My India also is an account of the initial optimism evoked by the inroads the railways were making into

***The Dufferin Bridge in Banaras, across the Ganga, perhaps also reflects the change over from navigation to surface transport***

the life and economy of the people of the sub-continent.

The Dufferin Bridge in Banaras, across the Ganga, perhaps also reflects the change over from navigation to surface transport. It is difficult to put a number to the trains and vehicles that would have crossed the Ganga on the 130-year-old Dufferin Bridge. Two railway tracks, a wide road, footpaths on either side, and a graceful grandeur matched with robustness mark this engineering marvel. Engineers from the colonial era did manage to erect a structure that, to my mind, mocks the pre-eminence of the Ganga and of Varanasi. Dufferin Bridge was named after Lord Dufferin who was the Viceroy of India when it was completed. In 1948, it was renamed Malviya Bridge after Madan Mohan Malaviya, the founder of Banaras Hindu University. It has other names: Rajghat Bridge, for the locality that abuts it, and the Double Decker Bridge, because trains run on the lower level and the road runs above. Edwin Greaves in Kashi the City Illustrious, writes that "possibly there is not a city in the whole world which presents a more picturesque appearance than does Benares when viewed from the Ganges, or from the Dufferin Bridge." John Sergeant, during his 3,000-mile rail journey for the BBC documentary Tracks of Empire, talks of how the construction of the Dufferin Bridge at Varanasi resulted in Victorian technology and ingenuity clashing with ancient religion.

The 5.5 km long Mahatma Gandhi Setu on the Ganga connects Hajipur in Vaishali district, twenty kilometres away, to Patna. At the confluence of the Ganga and Gandak in Hajipur, a wooden Shiva temple was built by Nepalese military officers in the 18th century, in the traditional pagoda style. The Gandak, in fact, comes from Nepal, and is called Narayani there.

Hooghly in Kolkata is distinguished as much by its colonial, as its postcolonial structures, including several modern bridges that span the river. The engineering accomplishments we know as Howrah Bridge – renamed Rabindra Setu in 1965 – had begun to be built in 1937 and was opened to traffic in 1943. It was the fourth cantilever bridge in the world, a steel sculpture about which, according to Sinha (2011), the French essayist Joseph Joubert wrote, "Monuments are grappling irons that bind one generation to another". With 26,500 tonnes of steel flung across the Hooghly, Howrah Bridge was the main thoroughfare for passengers landing at Howrah station, Kolkata's main railhead. Other bridges across the Hooghly in Kolkata include Vivekananda Setu or Bally Bridge built in 1932, the second Howrah Bridge, formally Vidyasagar Setu built in 1992 and Nibedita Setu built in 2007, India's first multi-span, single-plane, cable supported bridge, 880 metres in length.

Some other notable bridges across the Ganga include the Kacchi Dargah Bidupur Bridge. Currently under construction, upon completion, it will be longest river road bridge in India with a total length of 9.76 km. Bakhtiyarpur Tajpur Bridge, currently under construction, is 5.57 km in

*Old stone bridge near Mirzapur*

length, and connects Bakhtiyarpur and Tajpur in Samastipur. The bridge is likely to reduce the load on Mahatma Gandhi Setu. Vikramshila Setu near Bhagalpur is 4.70 km long and is the fifth longest bridge over water in India and links National Highway 80 and National Highway 31. Digha Sonpur Bridge connects Digha Ghat and Pahleja Ghat in Bengal. The 4.55 km rail and road bridge is a steel-girder-bridge and part of the Ganga Rail-Road Bridge project. The 4.35 km long Arrah Chhapra Bridge also known as Veer Kunwar Singh Setu is another under construction bridge across the Ganga, connecting Arrah and Chhapra in Bihar. The 3.69 km long Munger Ganga Bridge connects Munger-Jamalpur, twin cities of Bihar.

In the last leg of its journey through the vast north Indian plains, Ganga fans out into numerous alluvium-rich distributaries that collectively form the largest tidal delta in the world. One of these distributaries, Bhagirathi-Hooghly, enters West Bengal at Farakka on the Malda-Murshidabad border. At Farakka Barrage in Murshidabad, built in 1975, the waters of the Ganga flow into Padma, the broader distributary that reaches into Bangladesh, while Bhagirathi-Hooghly snakes down through West Bengal until it debouches into the Bay of Bengal at Sagar Island, 128 km South of Kolkata. Murshidabad is a district hemmed in on the east by the river Padma which separates West Bengal from Bangladesh, and to the west by Bhagirathi and Jalangi. The 2,245 m Farakka Barrage – the largest in the world, with 123 sluice gates – was constructed to ensure a steady supply of water into Bhagirathi, an engineering exigency to flush the siltation of the Hooghly port.

*Vidyasagar Setu, Prinsep Ghat , Kolkata - Cable Stayed Bridge*

# Colonial Trysts

## *From Trade to Tyranny*

*Taj of the Raj, Victoria Memorial, Kolkata*

India's former colonial capital and the present capital of West Bengal, Kolkata, owes its neo-classical and baroque skyline to Hooghly, the river that permitted the imperialists to quietly float into India. Kolkata, earlier Calcutta, rose from rustic beginnings, with the consolidation in 1690, of three villages: Sutanuti, Kalikata and Govindapur, on the banks of the Hooghly. It was the upshot of a profoundly ambitious, though at that time widely derided scheme of Job Charnock, an agent of the English East India Company, who first dropped anchor in the humid, mosquito infested banks of Sutanuti on the eastern banks of the river Hooghly in 1686. He went on to assimilate the two other villages, drawn to the area's strategic proximity to the river's mouth from where the British could control river trade.

It has been established beyond doubt that until the 15th century CE, the major flow of the Ganga passed through its southwestern channel, the Bhagirathi Hooghly. A great volume of water passed through the Bhairab-Jalangi Channel in Nadia District too. These two diversions built the South Bengal basin between them, through which the Ganga flows into the sea. Only in later times, more and more water of the Ganga began to flow into its south-eastern part, the Padma, making it the main channel.

River Hooghly, the lower reach of the Bhagirathi, was named after Hooghly town and ports in the 16th and 17th centuries by Portuguese settlers on its banks. Many centuries earlier, Emperor Ashoka voyaged from Pataliputra (modern Patna) to Tamralipta, now Tamluk, through the Hooghly. The river then fell into the Bay of Bengal which then extended some 150 kilometres north from its present shore, near Diamond Harbour.

*"The volume of trade from Kolkata increased so much that an alternative route to the city's hinterland had to be found"*

Romans who came to India for trading in the 1st century voyaged across the Arabian Sea and the Bay of Bengal, to the places on the western and the eastern coasts, respectively, entered Bengal through the River Hooghly. Roman coins and pottery found in various places in the east coast, in Orissa and 24-Parganas district of West Bengal, testify to this trade. Seals with inscriptions in Roman script have been discovered in excavations in Malda.

By 1520 CE, Portuguese merchants sailed from Bay of Bengal to the Hooghly, but probably not beyond, to evade customs duty, and in view of their notoriety for piracy, abduction and forcible conversion of local people, or because of heavy silting of the Bhagirathi, as mentioned in their records. They traded from Hooghly town and anchored most of their ships at Betor in Howrah, opposite the city which later came to be known as Calcutta. Dutch, British, French and Danish traders followed the Portuguese and settled at or near Hugli, Chinsurah, Chandannagar and Serampore. Even flat-bottomed steamships of low draft, which began plying from 1838, could not sail along the Bhagirathi for most of the year because of shallowness. The volume of trade from Kolkata increased so much that an alternative route to the city's hinterland had to be found. Discovery of a steamer route through the creeks of Sundarbans, to the joint estuary of the Ganga and Brahmaputra in present Bangladesh, in the 19th century, enabled foreign merchants to navigate up to Allahabad by steamers and up to Agra by boats.

It was, however, the Portuguese, who established the first European trading post along Hooghly at Saptagram or Satgaon, north of Calcutta in 1535. They called it Porto Pequono or small port. The river was further settled by the Dutch at Chinsurah, the French at Chandernagore, and the Danes at Serampore. "All these trading outposts were located on the right bank of the Hooghly and were connected to the northern interior plains and the heartland of the Mughal Empire by water," writes Baleshwar Thakur, in Urban Settlements in Eastern India: Entropy Changes and Pattern Analysis. However, none of these commercial settlements would rise to the provenance of Calcutta, which Lord Curzon (1859-1925), hailed as the second city of the British Empire.

Therefore, this section begins with a description of British-Indian architecture in Kolkata. The British, built the city and endowed it with an architecture and urban personality, at once typically colonial and singularly hybrid. The riverfront itself was invest-

*The promenade on the Hooghly at Chandernagar, West Bengal*

ed with a rich built heritage reflected in the Old Fort William, built in 1696, and the new octagonal Fort William, built by Robert Clive in 1757, presently, the headquarters of Indian Army's Eastern Command.

A short distance from the Hooghly is the BBD Bagh. Named after young freedom fighters Benoy, Badal and Dinesh, it was formerly known as Dalhousie Square, after Governor General Lord Dalhousie. This erstwhile political and business nucleus of Calcutta is ringed by 18th and 19th century buildings, with a tank called Lal Dighi at its centre, whose red waters reflect the red brickwork of the surrounding buildings. The most significant of these is the stately Writer's Building, which was built in the 18th century and till recently was the headquarters of the government of West Bengal.

The General Post Office on BBD Bagh West Road. With its 67-metre-high white dome supported by twenty-eight Corinthian pillars is one of the finest buildings in Kolkata. About a kilometre away is situated, The Taj of the Raj, Victoria Memorial, a memorial to Queen Victoria. This magnificent edifice, designed in the Italian Renaissance style by Sir William Emerson, President of the British Institute of Architects, was sixteen years in the making. Its foundation stone was laid by the Prince of Wales in 1906.

Strand Road, parallel to the Hooghly, stretches between Howrah Bridge to the north and Princep Ghat to the South and has several historical ghats. Built for bathing and river navigation, the ghats were busy places, visited by scores performing their ritual ablutions or boarding ferry boats or steamers. Princep Ghat, incidentally, is a memorial to the Indologist, linguist and head of the Indian mint, James Princep.

With Kolkata as the reference point along the Hooghly, we look at some of the other colonial settlements further downstream. The Portuguese may have been the first Europeans to establish a trading post here in 1535, but Saptagram had been a marketplace of the Arabs, Turks, and Persians even in the mid-14th century. Bansberia, one of the seven constituent villages of Saptagram has a couple of temples of exquisite beauty. The Anantha Vasudeva Temple is a Vaishnava temple built in 1649. Interestingly, alongside carved reliefs of amorous couples, warriors and dancers on the terracotta temple walls, are also Portuguese figures on ships, and even in procession, and in palanquins. The adjoining Hanseshwari Temple, built in 1801, is an architectural medley of European styles. The Japanese architect Takeo Kamiya likened this 13-turreted structure to a Russian monastery.

The district of Hooghly once sprouted several port towns like Serampore. This town sits on the Grand Trunk Road, where the Danes received trading rights in 1755. Renaming the town Fredericknagore, after Frederic VI of Denmark. However, by 1777 the Danish crown took over all possessions in India from the Danish Asiatic Company and Serampore's trade in cotton, silk, saltpetre, and sugar began to flourish. Today, Danish Government House, rebuilt in the 1780s and Jail (1803), and St. Olav's Church (1806) and Serampore College (1818), still stand in testimony. Perhaps the best conservation story in this town has been the restoration of the Danish Tavern established in 1786, once a watering hole for sailors along the Ganga, into a hotel.

The French Connection

Further up Hooghly River, about 16 kilometres from Serampore on the west bank is the space where the French staked their claim on India at Chandernagore, now, Chandarnagar. The French motto, Liberte, Fraternite, Egalite, is even today visible on the gate leading into town, which grew from a trading post the French set up here in 1697. The French aesthetic is everywhere, from the grand river-facing, kilometre long promenade or Strand, to the buildings on it. One of these is the French governor, Joseph Francois Dupleix's elegant palace, today, the Institut de Chandernagor, a cultural centre and museum that displays antiquities from the military and social history of the city. The Dupleix College and the church have been restored recently.

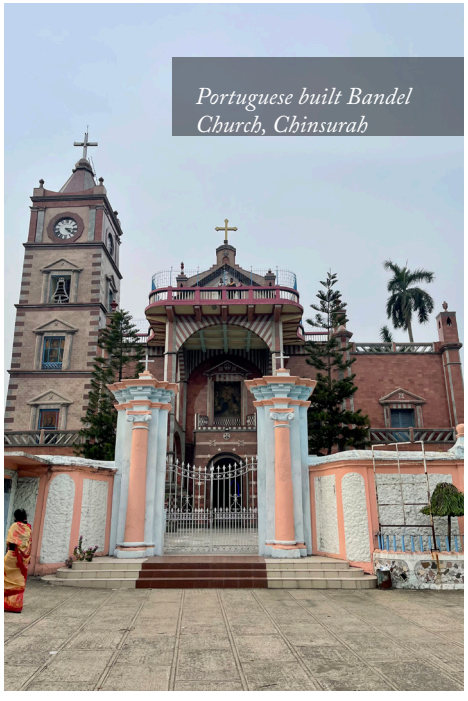
Barely 3 km north of Chandernagore is Chinsurah or Chunchura, Where the Dutch East India Company (VOC) settled in 1635. Chinsurah is today the district headquarters of Hooghly. Jan Albert Schiterman, VOC's Bengal director in 1734 fortified the factory and called it Fort Gustavus. The imposing house Schiterman

*Sacred Heart Church, Chandernagar*

built himself was called Welgeleegen or well-situated. It is now the bungalow of the Divisional Commissioner of Burdwan. Armenians, too, constituted a sizeable part of the population as evidenced by neighbourhoods like Armenitola. The Armenian Church devoted to Saint John the Baptist was built in 1692 and is the second oldest church in Bengal after the Church of Bandel.

Amongst all the tales of colonial exploitation, the one that is the most heart rending is that of the great Bengal famine that lasted from 1769 to 1773, killing around ten million people in the lower Gangetic plains. Despite the misery and destruction, the colonial government continued to tax the natives. One heart-warming story, however, is that of Haji Mohsin Ahmed, a wealthy merchant and a man of many talents, who set up many free gruel houses for people to eat in. In 1806, he left his entire wealth for public service, which led to the construction of fabulous public buildings such as the Hooghly Imambara, which not only employed people in such trying times, but also gave shelter. Large number of educational institutions were established through the Mohsin Fund. The crowning glory of the magnificent Imambara is the still functioning clock mounted on the twin towers of the gateway, of the same vintage and manufacture by Black and Hurray Company, as the Big Ben.

Located four kilometres from Chinsurah is Hooghly, the first international riverine port in India. The port was controlled exclusively by the Portuguese during the 16th and early 17th centuries, beginning in 1536, when Portuguese traders secured a permit from Sultan Mahmood Shah to trade in this area. They imported rich cargoes of pepper from Ceylon and the Maldives, porcelain, intricately carved furniture and brocade from China and camphor from Borneo, and exported muslin, kantha quilts, saltpetre, indigo, rice, and slaves. Chinsurah and Hooghly played a key role in the Bengal Renaissance and the Indian independence movement. Vande Mataram, India's national song, was composed by Bankim Chandra Chattopadhyay at Joraghat in Chinsurah. Kazi Nazrul Islam, also known



*Portuguese built Bandel Church, Chinsurah*

as *Bidrohi Kabi* (Revolutionary Poet), penned his revolutionary songs while he was imprisoned by the British in Hooghly Jail.

Bandel Church, dedicated to Nosa Senhora di Rozario, was built here in 1599. It is the oldest Christian edifice in eastern India, and, though destroyed by Shahjahan in 1640, was rebuilt in 1660. It was declared a basilica or Papal Church in 1988.

Moving up the Ganga, the colonial influence is very visible in Patna, which was declared by the British as the capital of the independent province of Bihar in 1936. In the initial years of Bihar's colonial occupation, it used to be a part of the Bengal Presidency. After the devastating famine of 1770, the British built an enormous granary here, the Golghar. Climbing up the two spiral staircases of Golghar offers a breath-taking panoramic view of the Ganga and the city. It also shows how the Ganga has moved away from the city as earlier paintings show the granary right by the river.

In 1901, the British named Allahabad the capital of the United Provinces. Even today, the city retains many markers of its colonial legacy. At Minto Park within a kilometre of Allahabad Fort, The Earl of Minto had laid a stone memorial with a four-lion capital in 1910. The well-known Allahabad High Court was established in 1866. While the Allahabad Public Library, built in 1870, is a remarkable example of Scottish Baronial architecture. Allahabad University, founded in 1887, is a unique blend of Indo-Saracenic and Gothic styles. Alfred Park, now called, Chandra Shekhar Azad Park, was established in 1870 to mark Prince Alfred's visit to the city.

Kanpur or Cawnpore, as it was known in the colonial times, is the commercial capital of Uttar Pradesh, located on the South Bank of the Ganga. As early as 1860, The Government Harness and Saddler factory was set up here to supply leather goods to the British army. Kanpur was also known as the Manchester of the East, because of the many textile mills that operated here in mid-19th century. These included the likes of Cawnpore Textiles, Cawnpore Woollen Mills, the makers of the popular Lal Imli brand and Elgin Mills, Kanpur's first textile mill.

Running from Har-Ki-Pairi in Hardwar all the way to Kanpur, the Upper Ganga Canal was a project that dwarfed its contemporaries like the much-hyped Suez Canal. The magnificent Upper Ganga Canal is an engineering marvel that compares favourably with other wonders man has created on earth. Many believe that other than the Great Wall of China, the Ganga Canal is the only other man-made structure visible from space. The story of the Ganga Canal is a very interesting one. The Ganga Canal, a dream project and lifelong passion of the British engineer, Sir Proby T. Cautley (1802-1871), was constructed from 1842 to 1854. Cautley was dismayed that while floods in the Ganga killed thousands in one part of India, and in the other, people died of thirst. The canal was North India's first irrigation system consisting of a main canal 560 km long, with its branches and the various tributaries stretching to another 492 km. The canal irrigates 3,100 km² in 5,000 villages across the two states of Uttarakhand and Uttar Pradesh. To build such an engineering marvel, Sir Proby needed to train hydrologists and engineers and he set up Asia's first engineering college in 1845,

***"Kanpur or Cawnpore, as it was known in the colonial times, is the commercial capital of Uttar Pradesh"***

the Thomasson College of Civil Engineering, Roorkee, which is today the IIT, Roorkee. The sites along the canal are worth appreciating for their architectural ingenuity. The Canal hides several interesting stories and heritage elements like the 150-year-old locks of the canal, water mills and bridges. The lion sculptures of the Ganga Canal are still recognizable elements of a rich albeit crumbling heritage. It is believed that the inspiration for the four lions at London's famous Trafalgar Square was taken from Roorkee's four lions.

One marvel of engineering along the canal is the Solani Aqueduct, India's first. While building the canal, Cautley realized that Solani, downstream of the Ganga was about 25 m higher than Hardwar. He built an aqueduct that gently took the flow of the Ganga Canal through an aqueduct built above Solani river, allowing the river to flow naturally in its course below the canal. The Solani aqueduct, therefore, is a masterpiece. The immensity of the project can be judged from the fact that the first ever railway engine to run in India was brought from England and ran between Piran Kaliyar and Solani in the December of 1851. The Mumbai-Thane rail link, considered India's first, came much later. The Jenny Lind, as the engine was affectionately called, still stands outside the Roorkee Railway Station.

The colonial imprint over the Ganga region is also evident in the large number of churches that dot the cities along the banks, such as the Sacred Heart Church, built in 1913 in Raja ka Tajpur, Bijnor, on the banks of the Karula river.

*The Grand Post Office at Dalhousie Square, Kolkata*

# Freedom & *the* Ganga

## *A Nation Awakens*

*Ganga is the spirit of India*

If it was the invaders, especially the British, that used the Ganga as the artery to choke and enter the very heart of this sub-continent, the river also nurtured several struggles along its banks, with bravehearts revolting against the oppressive colonial rule, in 1857 followed by the Freedom Movement.

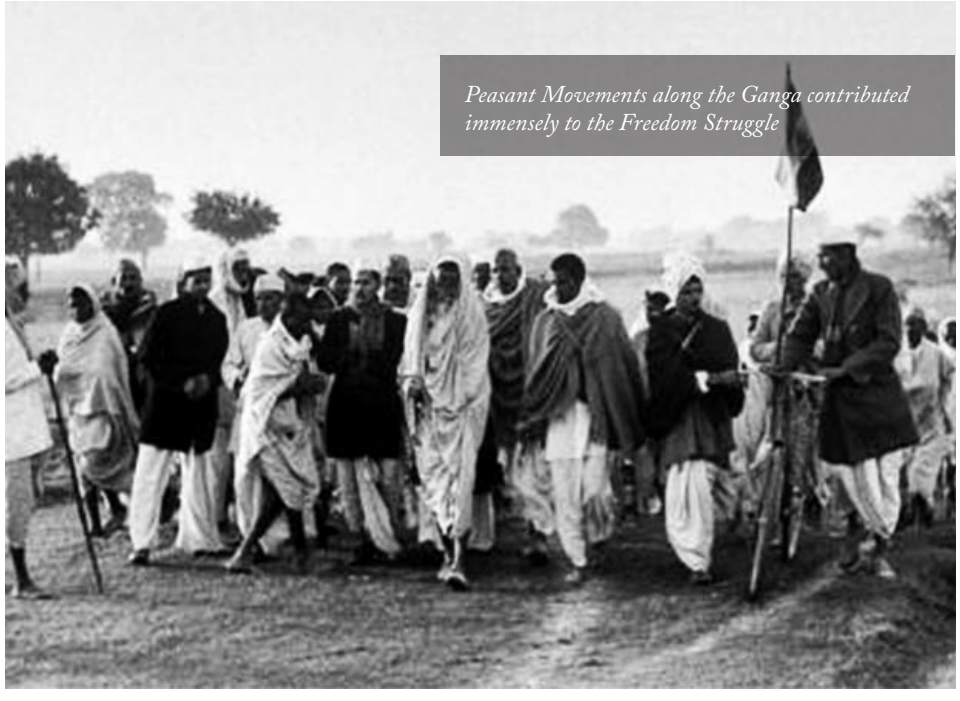
In the Himalayas along the Ganga and its tributaries, though the region was under the rule of the Tehri kings, many struggles for freedom were mounted. For instance, Chandra Singh Garhwali, the hero of the Peshawar Revolt, a soldier in the Garhwal Rifles of the British army, emerged a hero of the Indian freedom struggle upon his refusal to fire on unarmed, peaceful civilians. He averted a massacre and sparked off the Peshawar revolt of 1930. He continued to work against caste and communal oppression after India's independence.

In the hey days of the freedom struggle, Chandrashekhar Azad chose to spend his days in hiding in Dogadda, on the banks of the Koh River in Pauri, in the Himalayas - in hiding, on the advice of his fellow freedom fighter Bhawani Singh Rawat of Nathupur. The Nauri forests provided a perfect cover, while the park in which they practised shooting still reminds us of the zeal of these freedom fighters.

During the Revolt of 1857, riverine islands in Kankhal on the Ganga, near Hardwar, provided spaces for revolutionaries to gather and plan. It was Meerut, however, that emerged as the hotbed of the revolt. It was here that Mangal Pandey sparked the revolt, followed by the arrest of 85 cavalry men who refused to bite

greased cartridges. Kalipaltan Mandir, a temple here houses a memorial built in the honour of the 1857 martyrs, and therefore remains more of monument than a religious site. Meerut was also the venue of the controversial Meerut Conspiracy Case in March 1929, in which several trade unionists, including three Englishmen, were arrested for organizing the Indian-rail strike. The last session of the Indian National Congress before Indian independence in 1947, was held at Victoria Park in Meerut on 26 November 1946. It was in this session that the Constitution making committee was constituted.

Hardoi was also affected by the revolt of 1857. The first signs of rebellion in the district occurred in Sandila Tehsil. On the 27th of May, l857, an outbreak occurred in Malihabad near Lucknow. The Raikwars of Ruia and Rudamau were the first to rebel, as they were the last to yield. They at once descended upon Mallanwan, burned the courthouse, and destroyed the records. The tehsil and police stations were attacked. At Darwan, Madho Singh, who was the head of the Sombansi muafidars of that place and had been appointed thanedar at annexation, was attacked and surrounded by a rebel force. The inhabitants of the district joined heartily in the rebellion. Large numbers of Hardoi men were in the native army, and consequently the district was rapidly filled with soldiers who had come from those stations from which the



*Peasant Movements along the Ganga contributed immensely to the Freedom Struggle*

English had been expelled. Practically all the *taluqdars*, with one exception, took part with the rebels, and sent their armies to Lucknow. The Mutiny was, however, suppressed by the end of 1858.

*Eka* or Unity Movement, led by Madari Pasi, was a peasant movement which surfaced in Hardoi, Bahraich and Sitapur in the end of 1921. This was an offshoot of Non-Cooperation Movement. The initial thrust was given by the leaders of Congress and Khilafat movement. The main reason for the movement was high rent, which was generally higher than 50% of recorded rent in some areas. Oppression by thekedars who were entrusted to collect rent and practice of share-rent also contributed to this movement. The Eka meetings were marked by a religious ritual in which a hole that represented River Ganga was dug in the ground and filled with water, a priest was brought in to preside and the assembled peasants vowed that they would pay only recorded rent, but pay it on time, would not leave when ejected, would refuse to do forced labour, would give no help to criminals and abide by the Panchayat decisions. They resolved not pay the revenue without receipt and would remain united under any circumstance. Soon the leadership of the Movement passed from Congress to Madari Pasi, a leader who was not inclined to accept non-violence. This

led to the movement losing contact with the nationalist movement.

Kanpur's place in India's independence movement is indelible. In June 1857, Nana Sahib declared independence. In an incident known as Wheeler's Entrenchment, the British under General Wheeler retreated to a fortified encampment in the Cantonment area, where they remained under siege for weeks. The English Garrison later surrendered on condition that they could safely go to Allahabad. However, as British soldiers and their families were boarding boats at Sati Chaura Ghat, large scale violence broke out, earning the place the grisly name Massacre Ghat, resulting in the death of hundreds of people. The survivors were taken to the Cantonment, and many were later massacred in a building called Bibighar. The garden on the site is now called Nana Rao Park while Kanpur Memorial Church on Albert Lane is a Lombardic Gothic style church built in honour of the soldiers who died during Wheeler's Entrenchment.

The fort at Bithoor, 20 km from the centre of Kanpur is where Nana Sahib, Tantia Tope and Rani Laxmi Bai gathered their forces before attacking the British forces stationed in Kanpur. The garden inside the fort has been named Nana Rao Smarak Park in memory of Nana Sahib.

Though Rani Laxmi Bai is generally associated with Jhansi, Banaras also lays claim on her as she was born here. The warrior queen struck terror in the hearts of the British during the 1857 War of Independence. Memorialised elsewhere in India, in Banaras Jhansi Ki Rani Laxmi Bai is only remembered through a memorial plaque fixed on a dilapidated wall with an inscription, *Kashi ki Kanya,* Jhansi ki Rani.

During India's struggle for independence the home of the first Prime Minister of India, Jawaharlal Nehru was a hub of political debate and discussion. Today, the Anand Bhawan, four kilometres north of Allahabad Fort, is a National Memorial. Swaraj Complex in this premises was converted in 1930 into the headquarters of the Indian National Congress.

*Rani Lakshmi Bai of Jhansi was born by the Ganga in Banaras*

# Diversity *of* Architectural Heritage

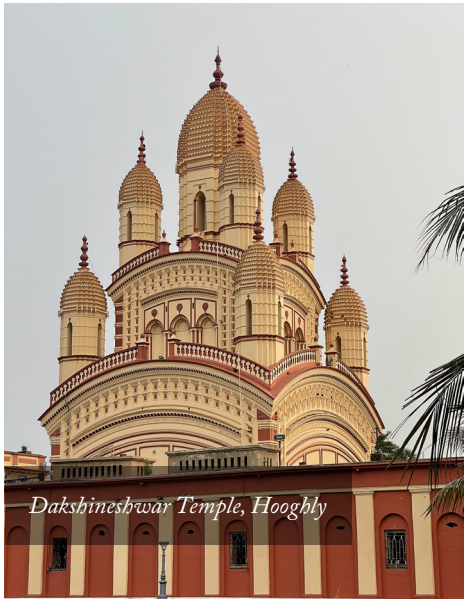
## *Building Typologies along the Ganga*

*The Tehri Palace in Narendranagar, Uttarakhand*

Time is the most mysterious dimension of physical reality and human consciousness. Our understanding of time has disintegrated under the scrutiny of science and the impact of materialism. There are also vastly different scales of time, such as cosmic time, geological time, evolutionary time, cultural time, and human experiential time. We all know how flexible and varied experiential time may be depending on the human situation, or horizon, that happens to provide the measure for the passing of time.

Architecture is not only about domesticating space, but it is also a deep defence against the decay of time. Aesthetics or the language of beauty is essentially the language of timeless reality. What our ancestors created along the banks of the celestial river, Ganga, seems to have withstood the ravages of time. Even today, while on the banks of the mother river – in Gangotri, Haridwar, Banaras, Mirzapur, Kolkata, or Murshidabad – one is overwhelmed by the timelessness of what the river represents in terms of the architectural aesthetic. What one also observes is the mindboggling diversity of building typologies along the river. Amongst the all-pervasive ghats, forts and palaces, there are myriad typologies that one needs to notice and preserve, if the spectacular heritage of the Ganga is to be safeguarded.

Let us look briefly at some of the building typologies that one notices, along the mammoth 2,525 km long journey of the river across the five Indian states of Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, and West Bengal. What these typologies represent is a collective tangible demonstration of how Ganga became the fountainhead, the wellspring of our civilisation. Any discerning traveller, wherever they may be along the Ganga, must look out for these familiar features, each with their minute differences of form and function, that make heritage along the Ganga so unique.



*Dakshineshwar Temple, Hooghly*

# Ghats

Unlike the western conception of a river as an aesthetic feature in an urban landscape, devoid of public contact, in India, populations actively engage with the river. They enter the river, use its water for ritual, offer it to the sun, bathe, cremate their dead, come aboard a boat, sometimes even do their laundry, and perform myriad other functions. *Ghats*, therefore, become a significant aspect of lives in any riverine urban landscape in India. They are also a rich source of spiritual understanding and mythmaking.

For instance, the eighty-four *ghats* on the Ganga along the city of Banaras are a sign of divinity endured in the physical, metaphysical, and supernatural elements. However, Banaras is known mainly for its *ghats* because the culture of the ancient city has a deep connection with the river and its religious values, making Banaras a popular *tirtha*. There is a common religious belief that the boon of life starts with the Dashashwamedha Ghat of Banaras and ends at Manikarnika Ghat, a unique combination of life and death, inspiring pilgrims to strive to break this cycle. The importance of the Ghats in Banaras cannot be looked at only in a religious perspective, but there is also a political messaging here which makes for more meaning to the history of this city. It is evident from Persian, Sanskrit and other vernacular literary and archaeological sources that apart from the Rajput kings like Man Singh and Sawai Jai Singh II, Maratha chieftains like Peshwas and Scindias also contributed to the development of the city along with the construction of the *ghats*, during the medieval period. The construction of *ghats* served as a prestige marker and proclaimed the ruler's social and religious commitment. The *ghats* thus, served religious, cultural, economic and political functions.

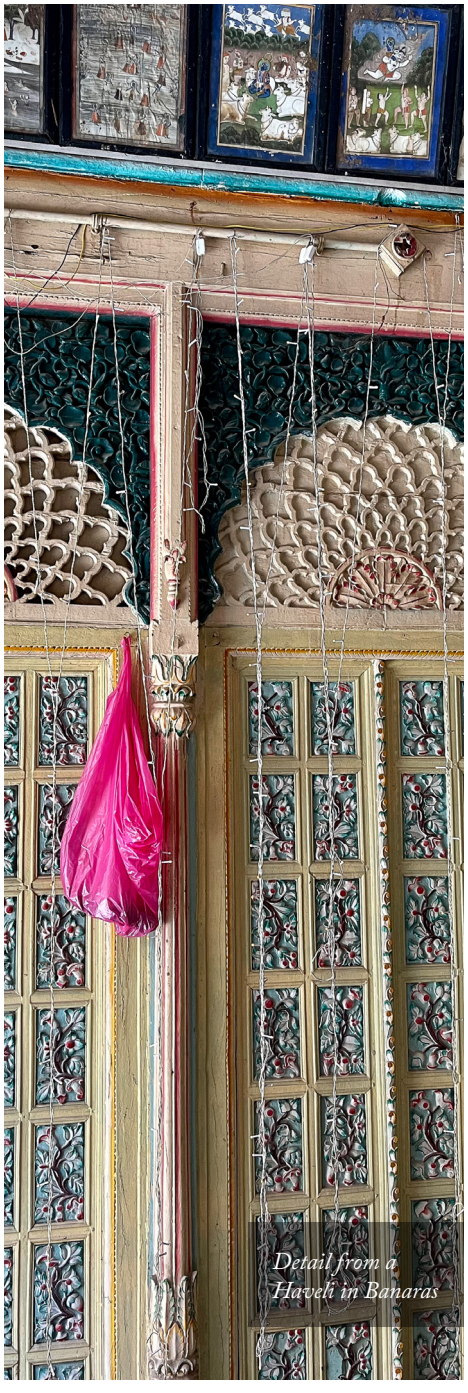
In the Himalayas, *ghats* are usually constructed at the *Prayags* which are the confluences of different tributaries that collectively form Ganga. In fact, Shiva himself has been described as the lord of the meeting rivers. As the poet, who is also a pilgrim walking a lonely Himalayan pathway, says:

*The rich will make temples for Shiva*
*What shall I, a poor man, do?*
*My legs are pillars,*
*The body, the shrine,*
*The head, a cupola of gold.*
*Listen, O Lord of the Meeting Rivers,*
*Things standing shall fall*
*But the moving ever shall stay.*
*…the Lord of the Meeting Rivers*
*stays with me*
*Every step of the way*
*And looks after me.*

*– Basavanna, Speaking of Shiva*

The five significant *Prayags* along the Ganga in the Himalayas where the glacial streams meet, are known as the *Panch Prayag*. The most important of these is at Devprayag, while the further upstream are Rudraprayag, Karnaprayag, Nandprayag and Vishnuprayag.

Every urban settlement along the Ganga has its own set of *ghats*. For instance, at Haridwar, Har-ki-Pairi or footstep of God is the most sacred, with the famous Gangadwar Temple located here. Here too, is the famed footprint of Vishnu, an indentation on a rock that has nourished a myth of its own. This is where the Kumbha Mela is celebrated every twelve years. Kankhal is the other significant *ghat* with which the legend of Sati and Lord Shiva is associated. In Hapur District is situated the town of Garhmukteshwar, where the Mukteshwar Mahadev Temple is situated. We have already written about the Massacre Ghat of Kanpur. The Pakka Ghat at Mirzapur has one of the most intricately carved stone temples and archways on the *ghat* overlooking the settlement across the river, indicating the material and cultural prosperity of this riverside town in past.



*Detail from a Haveli in Banaras*

The Prayag and Triveni Sangam, confluence of the Ganga, Yamuna and fabled Saraswati, of Allahabad are well known. The bustling metropolis of Patna stretches along Ganga's southern bank. Each Ghat in Patna served a different function and commemorates historic events, hence their names, Chimney Ghat, Collectorate Ghat, Kangan Ghat, Pathar Ghat, Adrak Ghat, Mirchi Ghat and so on.

Kolkata also has its own set of *ghats* each with its own character. Armenian Ghat was built in 1734 by the Armenian trader Manvel Hazaar Maliyan. Jagannath Ghat was built in 1760s by the businessman, Shobharam Basak. It was renamed Chotulal Ghat and once attracted ships from as far as London and New Zealand. The Princep Ghat is well preserved under the more recent Vidyasar Setu. Kalighat, of course, is Kolkata's most revered *shaktipeeth*.

# Temples

Owing to the sacred character of the river, temples dot the landscape. From the temple at Gangotri in the Himalayas to the Kapil Muni Ashram at Sagar Island, there are several temple styles on display. Himalayan temples display the *Nagara* style predominantly and inscriptions as well as copper plates found in temples indicate that the tradition of pilgrimage has existed ever since the dawn of civilization. Even downriver into the plains, many temples are built in the *Nagara* architectural style, along the river, dedicated to diverse deities from Lord Shiva to Goddess Sita. The typical layout of a temple comprises of a central *garbha-griha*, topped by an intricately ornamented *shikhara* and *uru-shikharas*. The *garbha-griha* is surrounded by a *pradakshina* path or circumambulatory path which has a veranda supported on multi-foliated arches.

# Dargah

The Pir Dargah, usually situated on hillocks by the river indicates the emergence of a Sufi movement along the Ganga. The cenotaphs of saints are placed in an open to sky walled courtyard. Each side of the courtyard has a large central arched niche flanked by a smaller niche on either side. The arches usually resemble Sultanate style architecture.

# Palaces

Pleasure palaces along the Ganga had a *baradari* with arched openings on each side, gateways with guard rooms, a row of apartments with a small open court meant for women and their female attendants, a common arched gallery, and a space for entertainment. All palaces displayed unique features, giving us a glimpse into the idiosyncrasies of the occupants.

Palaces range from the Rani Mahal, the Raja of Tehri's palace at Pratapgarh, near the lake formed on the Bhagirathi in the Himalayas to the Hazarduari or the Palace with a thousand doors, in Murshidabad.

# Traditional Residences

Most of the residences are rectangular fronting the street with verandas, with an inner courtyard on the ground floor and projecting balconies on the floors above. The facades are ornate with slender columns, cast iron railings, timber or cast-iron filigree screens, decorative fascia, etc. While some residences borrow elements from Classical Western architecture like fluted pilasters with Corinthian capitals, dentilated cornices and triangular pediments, others incorporate Art Deco elements in their ornamentation.

# Colonial Bungalows

Colonial bungalows were usually single or double storied structures and did not follow any typical spatial layout, but adjusted to local conditions, showing great attention to detail. Most of them had long verandas with timber railings, facing the Ganga, providing spaces to sit outside in the hot weather and during the Monsoon. The verandas had a porch like extension with steps running down to the riverfront. They were usually masonry structures, with exposed brick facades or lime plaster finish, high ceilings and tiled sloping roofs supported by timber posts, timber beams and joists.

# Wells & Talabs

Temples are usually accompanied by wells or *talabs*. All devotees who visit the temple during the auspicious time of the year, take a sacred bath in the *talab*. These water features are not only religious in nature, but also add to the water networks. They are connected to river Ganga in their myths, legends and water augmentation. While they cater to the religious needs of the people, they are also used for daily needs. Thus, village settlements tend to occur close to these water bodies.

# Rauza

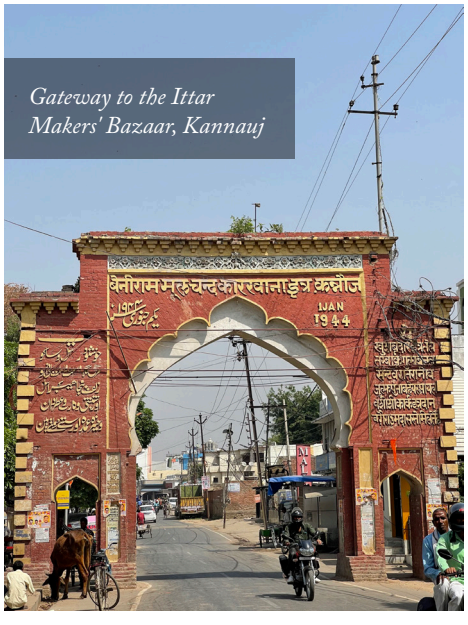
Shrines along with graves of saints are known as *Rauzas* and reflect Mughal architectural features. A typical *rauza* has a well within the premises.

# Churches & Graveyards

Churches reflect Victorian architectural style and features, built in brick. The typical architectural features of the churches built by the British community comprise of semi-circular or gothic arches, topped by circular windows. The roofs are steeply sloped supported by trusses, very ornamental at times. The steeple is accessible by a staircase and the belfry usually carrues a large brass bell. The windows are often shaped as pointed Gothic arches, often with decorative stained glass work. A typical church has a graveyard within its complex, which has multiple graves with decorative headstones.

# Civic Structures

Civic structures included railway establishments, government offices, courts, libraries, hospitals, police stations, bungalows, residences, gateways, *akharas*, changing rooms, sit-outs, *chattris,* and hundreds of other typologies that liven up the landscape along the Ganga. They are usually simple but well proportioned structures, many having stood the test of time and still functional, radiating an aura of tradition and history.

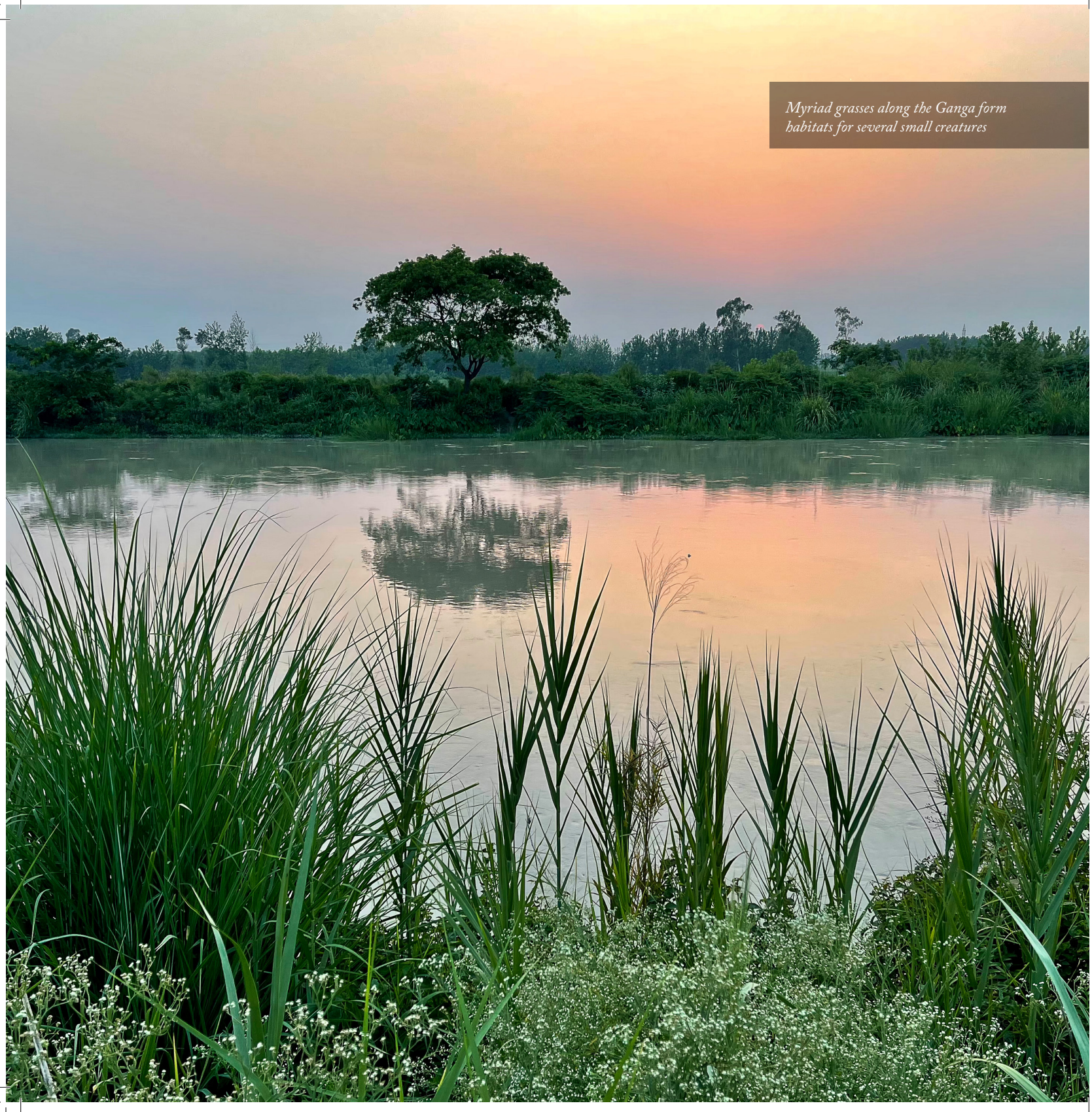



*Gateway to the Ittar Makers' Bazaar, Kannauj*

Ganga
Katha

CHAPTER V

# Nature's Benediction *on the* Banks



*Myriad grasses along the Ganga form habitats for several small creatures*

All said and done, Ganga is a force of nature. A stream of water, that gushes from the crown of the country, the Himalayas, from the Gangotri Glacier, through a cave evocatively called Gaumukh, mouth of the cow, 8925 m above sea level. She emerges into the light as a frosty stream, as snowmelt. On its bank, great empires like the Kurus, Kampilya, Varanasi, Champa, Patliputra, Magadha, Nanda, Maurya and Gupta emerged over centuries. Kingdoms prospered not only on account of the rich harvests off the Gangetic plain, but revenues earned from trade on the river. Cargoes of grain, textiles and spices travelled both inland on the Ganga and out to foreign shores. Commercial opportunities presented by the river soon attracted colonial traders who reached to the heart of India through this crucial artery of India. The grip of colonialism was hard to break, but Indian resolve finally won and in the 20th century, colonialism gave way to independence, reshaping India's physical and political body. Technology freed people from the traditional moorings of land and river, permitting them to venture further from familiar ground. While the migrations of the modern age reoriented social values and upturned hierarchies of place, so that the vaunted status a river might have once held in history was watered down with time.

> *"Ganga continues to be the pivot of our national life, a provider and protector of food and faith"*

But not the Ganga. If anything, the river's centrality to the spiritual and material progress of the country has only been reinforced. Ganga continues to be the pivot of our national life, a provider and protector of food and faith. Today, if we still believe that Ganga sustains the nation, it is time the nation pays adequate attention to sustainable co-existence with the river.

Therefore, it is in order that we study the natural processes, that ensure that Ganga continues to be a life force despite the abuse the river suffers at the hands of urban and industrialised India. We must develop an understanding of why the river water, once known for its self-purifying capacity, is now highly polluted due to discharge of untreated municipal and industrial waste waters and effluents directly into it. The problem is compounded by its depleted flow due to diversions caused by construction of dams and barrages. Deforestation in its catchment, sand mining and stone quarrying in its riverbed and bank are doing immense harm to its ecology. Climate change and global warming are also likely to add to the crisis. The restoration of the river to its original pristine quality needs concerted actions from all sections of society and the government. This action can only come if we go

*Jad Ganga in the Nelong Valley near Gangotri*

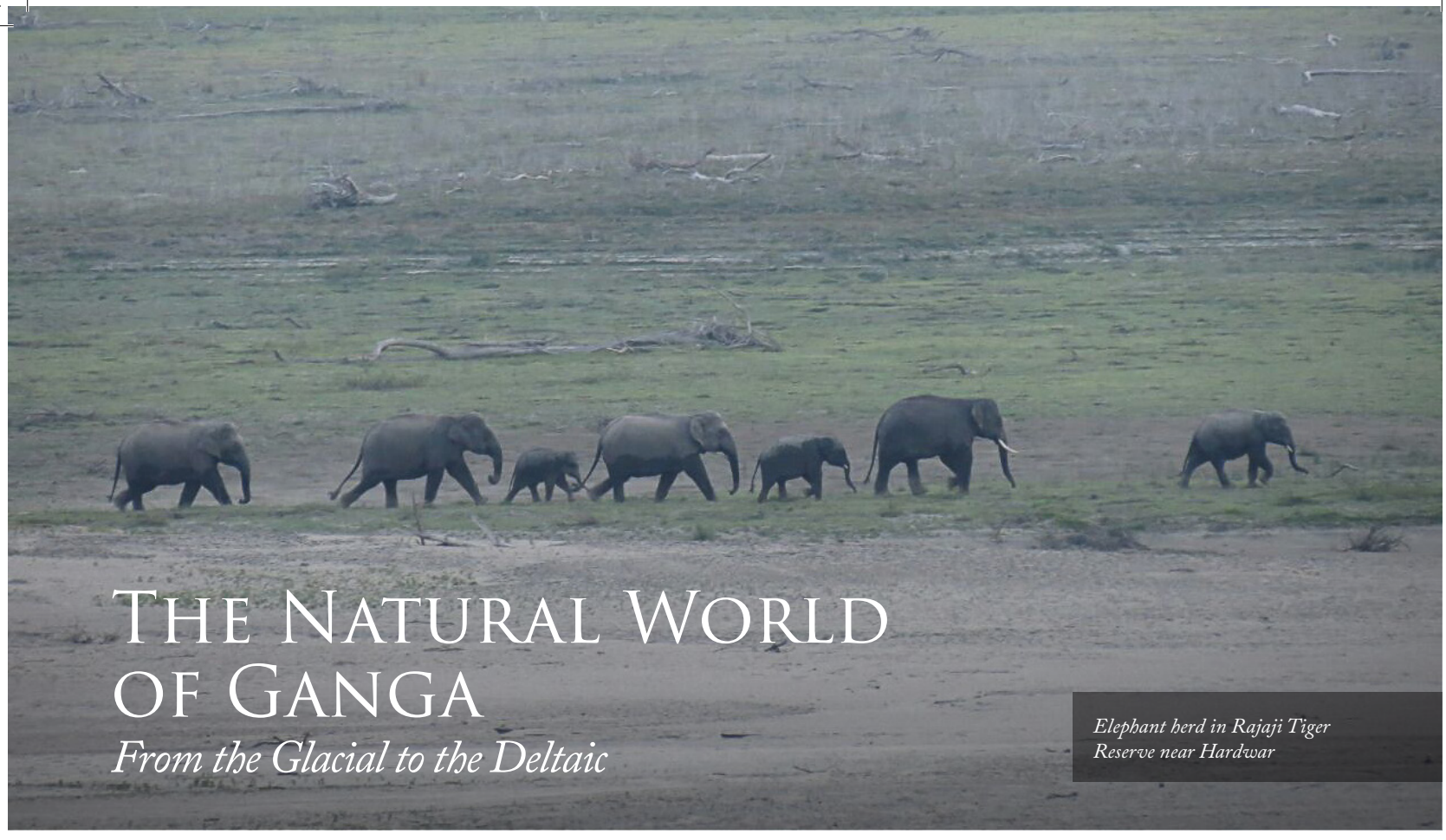
*"Along the way there are 94 urban settlements and several rural ones along with riparian communities situated in a quickly changing landscape"*

back to mother nature and understand the processes that contributed to keeping the river in health.

With this ambitious quest in mind, the main stem of the 2525 km long river was surveyed all the way from Gaumukh to Ganga Sagar in a 10 km wide corridor spanning both banks over 51 districts in 5 riparian states. The young river flows with great velocity through steep mountains debouching in the plains at Haridwar. Thereafter, the river flows gently through alluvial plains finally losing itself through the Sunderban Delta, into the Bay of Bengal. Along the way there are 94 urban settlements and several rural ones along with riparian communities situated in a quickly changing landscape. In the process, we also looked at archival maps and satellite imagery. We then compared them to Renell's map of 1785. Further leads were generated by the Survey of India maps from 1822 to the present times. Any gaps in the information chain were filled up by maps of the US Army and available Google imagery since the year 2000. However, the real findings came with conversations along the river, and from boating and fishing communities.

We realised that whilst Ganga assumes all the characteristics of ordinary rivers, its unique bacteriophage, legends, and sacred aura place it above all rivers. While the sacredness of the river has been amply documented, several natural aspects vital to the understanding of the river have been overlooked over the years. Let us look at some of these aspects through a brief description of the revelations of our study.

*The vegetation and landscape close to the source of the river*



# The Natural World of Ganga

## *From the Glacial to the Deltaic*

*Elephant herd in Rajaji Tiger Reserve near Hardwar*

As Ganga begins its journey from the glacier at Gaumukh, the Bhagirathi peaks I, II and III loom on the horizon. The naming of these peaks as such since times immemorial validates the old legends of sage Bhagirath's efforts to bring the Ganga to earth. At this point the realisation dawns that the mapping of this region was accomplished as late as 1822, as the devotees of Ganga did not venture into the Himalayas beyond Gangotri lest they should pollute the sacred source of the river. With breath-taking views of the river emerging from the Himalayas, we also come across signs that make it evident that the Gaumukh glacier is indeed shrinking at an alarming pace. Ground markings by geologists and the transforming shape of the cow's mouth, the Gaumukh, point to this stark reality. We also meet the *Bharal* (Himalayan Blue Sheep), the *Pika* (a tail-less rodent) and the Himalayan Chough (yellow-beaked ravens) . Perhaps the Snow Leopards, the Himalayan Brown Bears and the Himalayan Tahrs saw us but did not appreciate human contact. As we continue our journey downstream, we realised that the rivers Alaknanda and Bhagirathi, meeting at Devprayag exhibit distinct colours in their waters. We are told that there are seasonal variations in the colour too. The waters of the Bhagirathi are distinctly devoid of silt, after the construction of the Tehri Dam, and a few other projects upstream, explaining the clarity of colour and the distinction. At Hardwar, in the Jhilmil Jheel marshes, we come across the odd leopard and swamp deer. The Rajaji Tiger Reserve in the area is known for its free roaming large elephant herds that migrate between here and the Corbett Tiger Reserve in the Kumaon Terai. The Najibabad-Bijnor region is also an important elephant corridor. The Nil-

*A Nilgai and a Drongo share a symbiotic relationship in the fields near Vasihali*

gai (blue bull) is all prevalent along the course of the river. We spotted Golden Jackals and Nilgai in Mirzapur, Black Buck in Buxar and Bhojpur.

We also came across alarming tales of man-animal conflict that is constantly on the rise as urban sprawls along the Ganga encroach upon prime forest land.

We continued our journey looking at tributaries and paleochannels, realising that several small river channels are gradually fading away as farms and urbanisation expand their stranglehold over the river. We see that farms have now reached the edge of the flowing channels, wiping out the grasses and the habitats that once flourished on the banks, making them vulnerable to erosion. These grasses and their roots held the alluvial rich banks together and helped check erosion. Today's methods are much more expensive and ineffective. An economy of craft that depended on these grasses, through mat making, thatch weaving and basketry is disappearing.

We saw rampant erosion along the banks, particularly in the Vindhyanchal region. A part of the Buxar Fort has, in fact, been washed away by the river in the absence of any vegetation on the banks.

However, the flood plain produces other than the typical crops, also brought in a few surprises like the Bananas of Vaishali or the *Parwal* and Rabi cultivation at Prayagraj, and the plantain fields along the Ganga at Patna. The large scale cultivation on the flood plains is wiping out the riparian vegetation in vast stretches.

We encountered many sacred trees, like the *Bhojpatra* trees between Chirbasa and Bhojbasa, in the Gangotri Wildlife Sanctuary on the way to Gaumukh. The bark of these trees was once used as paper for sacred texts. We saw the Bodhi Tree at Sarnath, a sacred space where Buddha found and preached to his first six disciples. All along we witnessed the veneration with which Ficus trees – *Peepal, Bargad, Gular, Krishna Bargad* are held in. The sacred *Aksay Vat* in the fort at Allahabad, with the tree believed to be immortal, evokes a sense of wonder. Prayagraj's ancient African Baobab, a rare six-hundred-year-old tree that is believed to fulfil wishes if prayed to, amazed the researchers, even as we found several shrines and temples established within tree trunks. The over 250-year-old single Banyan (*Ficus benghalensis*), a native of India, caught our attention. It covers about 14,500 square meters or 3.5 acres of land in the Acharya Jaga-

***"The sacred Akshay Vat in the fort at Allahabad with the tree believed to be immortal, evoked a sense of wonder"***

*As the Ganga meets the oceans*

dish Chandra Bose Botanical Garden near Kolkata, making it the widest tree in the world. From a distance, the tree has the appearance of a forest, but what appear to be individual trees are in fact aerial roots, about 3,600 of them!

We visited flood plain lakes and felt dismayed at how they are shrinking because they are being encroached upon. We soon realised that the agricultural fields are routinely being expanded through reclamation, despite directions from the judiciary against this practice. This is seriously affecting bird habitats and populations. Upardaha Tal in Prayagraj, Benti Lake in Pratapgarh, Suraha Tal in Ballia, Samdha Tal, Ahiron Bheel in Murshidabad are all suffering thus. Some of these, like the 16 km long Bhagartal at Bhagalpur, is an ox-bow lake with its unique flora and fauna.

Ganga is a great benediction, but it is also a unpredictable river, changing course, flooding, or causing riverbeds to dry inexplicably. The full impact of this was visible at Farrukhabad, where the once busy Vishrant Ghats are now dry and desolate, severely affecting people's livelihoods, the river having moved away. Farmlands in the region have also been rendered unproductive. It was, therefore, significant to map changes in river courses from Hardwar to Ganga Sagar, making use of maps from early 20th century and superimposing them on later maps as well as currently available data. For instance, on the Bhagirathi-Hooghly stretch in west Bengal we saw that the channel has shifted substantially eastwards. The Stavorinus Map of 1769 showed the Guptipura settlement to the east of the Ganga, whereas it now lies west of the main channel, the river showing a change of at least a mile in its course.

The Saraswati at Triveni, on the Hooghly in West Bengal, also offers an interesting case. The Saraswati, which is described as three-braided stream in the Sanskrit poem Pavandutam from the 12th century CE, is also visible as a large stream in maps as late as that of Valentijn, the data for which was collected in 1660-70. It is also mentioned in some Islamic literature from the 13th century and later. Today, the river has completely disappeared from its original location.

The struggle between alluvium and diluvium is constant. The Malda Bank, for example, consisting mostly of sand, offers little resistance to changes in the flow. The river has been adjusting its course since long and the effects range from people having to move their lightly constructed homes, to entire cities like Rajmahal getting abandoned.

Fish are crucial to the river's health, as well as survival of large of fishing communities, such as Mallahs, living near the river. Hamilton's book of 1822 lists 272 species which many have all but disappeared now. We heard the fishermen intently and tried to comprehend the changing fish composition, the difficulties with a declaining catch, their intimate knowledge of river currents and fishing trends. We visited several fish markets to understand the

status of fishing economies along the river. The river shark of the Hooghly was last spotted in 2016. The Gangetic Dolphin, which has now attained the stature of National Aquatic Animal, has slightly increased in numbers and the sightings seemed to be much easier at the confluences. Gangetic Dolphins, we realised, are covered with a thick layer of fat called blubber. Oil extracted from blubber is used for baiting other fish. Every part of the Dolphin is valuable, with oil from its spine and marrow being most expensive. Locals believe it is a good cure for inflammation and arthritis. However, with growing awarness of its protected status the killing of dolphins has greatly decreased.

As the Ganga enters the delta area, alluvial deposits result in the creation of large riverine islands. Some of these islands are inhabited, even as the coastal areas are richly endowed with Mangrove forests. Comparison of satellite imagery over time, showed growth and changes in green cover. Mangroves are excellent land protectors and wind breakers, giving respite to habitations from cyclonic storms. They are habitat for the Royal Bengal Tiger, the pride of India's wildlife, and several others such as swamp deer, spotted deer, wild boars, monitor lizards and gharials. These coastal and island areas also support marine invertebrates such as shrimp, jellyfish, anemone, and crabs. These regions include the Sunderban Delta, Rewatbir, Raghopur Diara and the Sagar Island where the Ganga finally debouches into the sea. For most pilgrims travelling from afar, this is the end of the Ganga's saga, from source to mouth.

*"Mangroves are excellent land reclaimers and wind breakers, giving respite to habitations from cyclonic storms"*

But the more one engages with the river, the more one realises that the river has been accepted as a divine force by humanity since the dawn of time because it has engaged itself in an unending cycle of the monsoon regime, to continuously supply the multitudes along its banks – man, animal, and forests – with water, with nutrition, with sustenance. The data to support this is mindboggling. Ganga and its tributaries irrigate 1,65,70,000 hectares of land, which amounts to 33% of irrigated land in the country (Chandramouli, Bhattacharya ibid.). Ganga carries the highest quantity of sediment, about 2.4 billion tonnes a year, greater than any other river in the world. The population of the Ganga basin is estimated to reach about one billion in 2030. Along the banks there are 94 urban centres, including 29 Class I cities, 23 Class II cities and 42 towns apart from many villages. No other river is under more stress, no other river has so many lives dependent on it!

*A Mangrove tree with its stilt roots that negotiate the tides*

# Only Hope *against* Climate Change

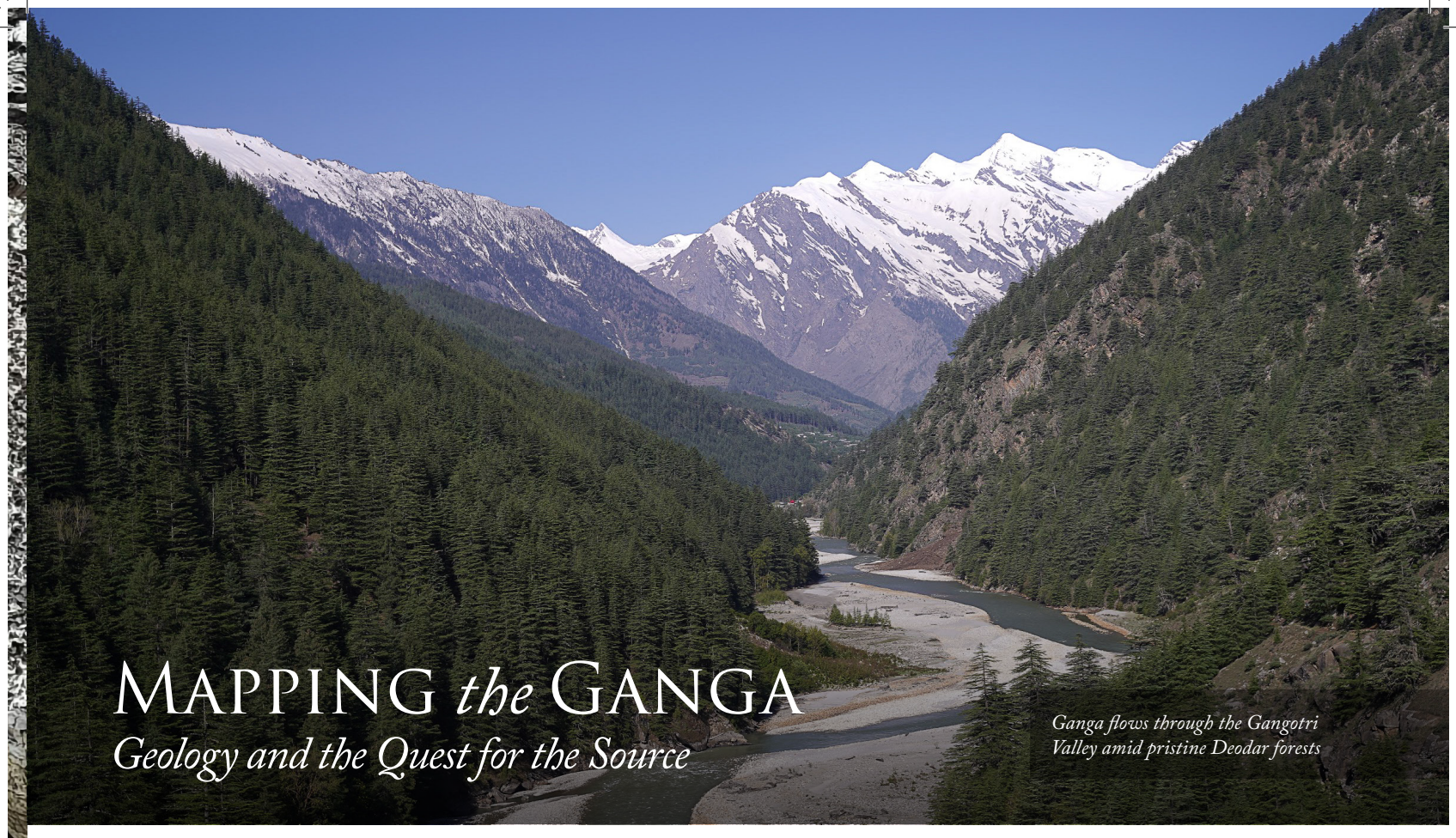
Geologist and Deep Historian Pranay Lal (2016) tells us that when Tibet and Himalayan mountains were uplifted due to tectonic movements of subcontinents, it caused the Monsoon to intensify. Heavy rains caused by the powerful monsoon pummelled the slopes of the Himalayas and increased the rate of erosion on these slopes, causing greater burial of carbon and silica and depletion of carbon levels in the atmosphere. The Earth's temperature decreased substantially, and the poles froze.

Over millions of years, the river has become the most efficient global storehouse for carbon dioxide. Unlike the other, older mountain ranges of the world, like the Alps and the Andes, or the Vindhyanchal and the Aravalis closer home, the Himalayas are composed of very young granitic rocks. When the carbon rich monsoon rain falls over the young granite of the Himalayas, the silicon from these rocks reacts with the carbonaceous waters to create complex colloidal compounds in the waters. This deters the festering of any microbial matter as well as algae. This ensures that water from the Ganga, from Gaumukh to Garhmukteshwar does not get spoilt even when stored over long periods of time. However, the increasing human interference with the river, resulting in the addition of urban as well as industrial waste to the river has seriously undermined this unique potency of the Ganga waters.

Lal's ground-breaking research in deep history has further postulated that it is Ganga that is more efficient than the Brahmaputra or the Indus in mitigating the greenhouse effect because the clayey soil and silt of the Ganga contains more silicates and therefore captures more Carbon dioxide within it. It is estimated that every monsoon, 1.2 billion tonnes of sediment is transported by the Himalayan rivers and gets buried several thousand metres deep in the Bengal delta fans causing deep burial and sinking of 22% of the world's carbon in the submarine canyons off the coast of Bay of Bengal. According to him, between them, Ganga and Brahmaputra sequester nearly 20% of global carbon, and their sediment, over millions of years, have etched submarine canyons in the Bay of Bengal that are larger than the Grand Canyon. Unlike other coastal regions of the world, these areas are virtually unmapped, and we have little knowledge of this gigantic carbon sink. Ganga carries tremendous amounts of its own glacial melt and the load from its tributaries to this region, burying atmospheric carbon dioxide deep into the recesses of the earth.

Therefore, if we must save ourselves, and our earth, from the effects of climate change and global warming, if we talk of Carbon sequestration as the most effective method to fight negative impacts of climate change, it is imperative that we save the Ganga.

*Mandakini flows under a glacial formation near Kedarnath*



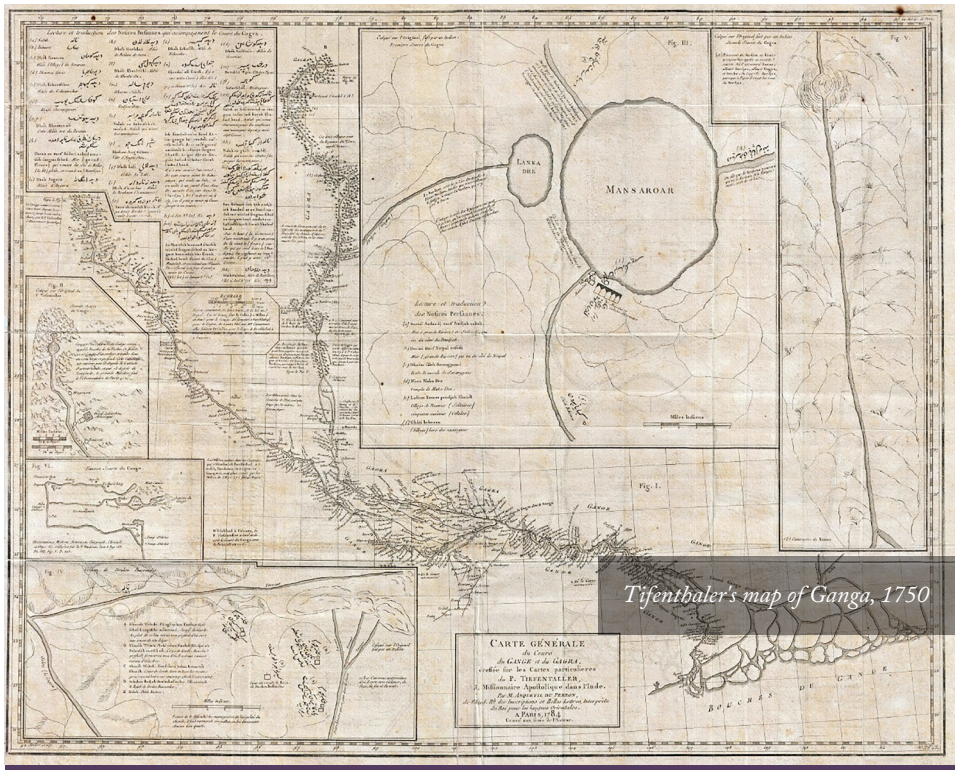
# Mapping *the* Ganga

## *Geology and the Quest for the Source*

*Ganga flows through the Gangotri Valley amid pristine Deodar forests*

In the Himalayas, it is said that one should not search for the source of a river, that it should remain free of any human presence. To begin with, the source of the Ganga had been a mystery for most till the early 19th century. The Puranas consider Brahma's *kamandalu* and *Akash Ganga*, the galaxy, as the source. European geographers and cartographers like Ptolemy from the 2nd century indicated the source in their maps, based on accounts of traders and travellers, who themselves had only heard stories of the source of the mythical river. Jesuit missionaries, in the 17th century, went into the Himalayan regions and their accounts were more authentic. Father Monserrat drew maps and gave a rough idea of the mountains and the lake Mansarovar. The travel accounts of Father Antonio de Andrade gave the world some indication of the location of Tibet and Mana Pass. He pointed out the source of Ganga as a large pool at the summit of the mountains. Two *lamas* sent to Tibet in 1712-17, came back with a map showing Ganga originating from Rakshas Lake, west of Mansarovar, a description that was generally accepted as correct in 1733. Father Desideri in 1715-16, had declared Mount Kailas as the point of origin of Ganga and Indus. Tiefenthaller's map of 1750 was closer to reality in the plains but shows the source as Gangotri as well as Mansarovar.

Major James Renell, the Surveyor General of Bengal, concluded that Ganga originated in the lake Manas or Rakshas, pierced the Himalayan range and came out on the southern foot of the Himalayas, as if from a rock cave shaped like a cow's mouth. In his map of Hindustan, drawn in 1782, he showed Mansarovar as the source of the Ganga. Geog-




*Tifenthaler's map of Ganga, 1750*

raphers relying on Hindu tradition placed the source of the Ganga below Kailas. This belief continued until as late as 1807. An expedition that set out in 1808 with Captain Webb as leader could not complete its mission. The expedition reported that the source of Ganga was more remote than Gangotri and that the road beyond Gangotri was concealed under masses of snow. James Baillie Fraser, walked up to Gangotri in 1815, and concluded that the river came from the hollow of the snow at Gangotri. The idea that it gushed out from a rock cave which appeared like the mouth of a cow, appeared nebulous.

Captain Hodgson was the first European to go beyond Gangotri to Gaumukh in 1817. He described Gaumukh thus:

*The Bhagirathi or Ganges issues from under a very low arch at the foot of the grand snow bed. The river is here bounded to the right and left by high snow and rocks; but in front the mass of snow is perfectly perpendicular, and from the bed of the stream to the summit, we estimate the thickness at little less than 300 feet of solid frozen snow… the height of the arch of snow is only sufficient to let the stream flow under it... Believing this to be the first appearance of the famous and true Ganges in daylight, (the party) saluted her with a bugle march.*

The Survey of India was able to extend its activities into Garhwal subsequent to British control after ousting Gorkhas of Nepal. This led to the first accurate map of the entire river from Gangotri to Bay of Bengal published in 1822.

Gaumukh may only be the visible source of the mighty Ganga. The Himalayas are host to innumerable glaciers. The Chaukhamba-Badrinath ranges (7070 to 7140 amsl) have three important glaciers in west-easterly directions. These are the Gangotri, Bhagirathi Kharak and Satopanth Glaciers, just 40 km far from the river, as the crow flies. Bhagirathi Kharak and Satopanth feed the Alaknanda. Gangotri glaciers are formed of several smaller glaciers like Thelu, Raktavarn, Chaturangini, Kirti, Meru and Bhrigupanthi. Many other glaciers come together to feed the main rivers as the Bhagirathi and Alaknanda come together to form the Ganga at Devprayag. Therefore, Ganga is the result of the confluence of three major glacier fed rivers – Bhagirathi, Alaknanda and Mandakini, and their tributary rivers in the Himalayan ranges.

Glaciers are the consequence of ice ages. Present glacier cover of the Himalayas is the consequence of the Quaternary Ice Age, and geologists have reason to believe that the ice limit may have once extended beyond the southern limits of the outer Himalayas. Since the last glacial cycle of the Quaternary Ice Age, about 10,000 years ago, practically every glacier has shown degeneration in mass and volume. Same is true of the Gangotri Glacier also.

*"Glaciers, wherever they exist or existed, leave a distinct signature in the form of glacier landforms"*

Gangotri Glacier is a system with a glacierized area of about 300 km². It is situated in the Bhagirathi Valley of the Uttarakhand Himalayas, and comprises a cluster of more than seven glaciers, most of which merge or flow into the main trunk. The latter, moving in northwesterly direction, is about 30 km long with a glacierized basin of 150 km², ranging in elevation from 4,000 mamsl to 7,000 mamsl.

# *The* RETREAT

Behaviour of this glacier, since the last glacial activity, can be best illustrated by referring to three distinct observational parameters:

## Geomorphologic Evidence

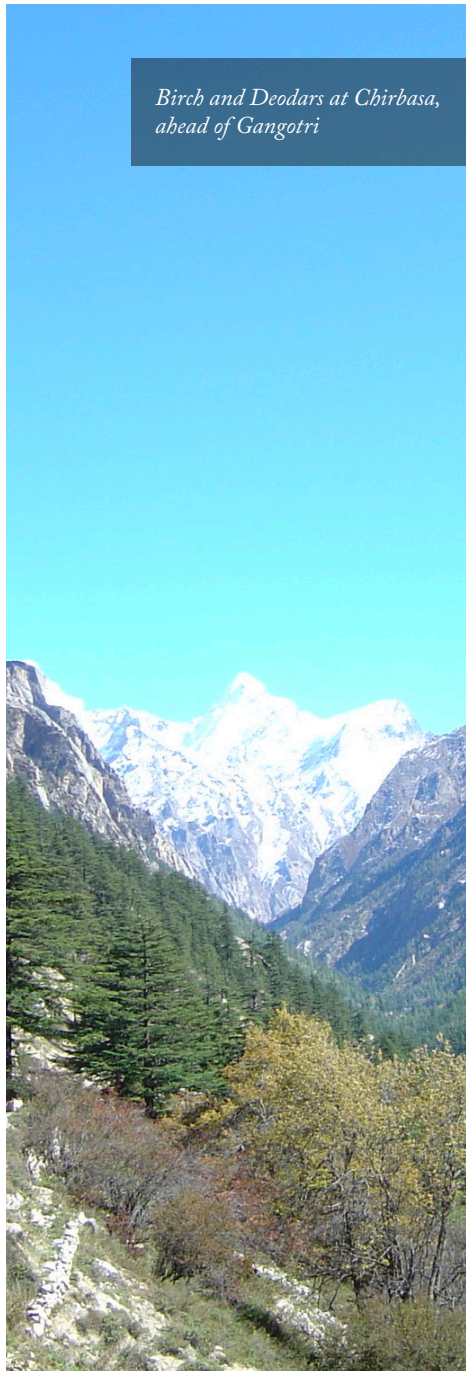
Glaciers, wherever they exist or existed, leave a distinct signature in the form of glacier landforms. These landforms can be the consequence of glacial erosion or deposition. A survey of the Bhagirathi Valley, downstream of the Gangotri temple, has revealed the existence of numerous characteristic glacial landforms like glacier pavements, saw cut trenches, link cavity system and till deposits almost up to Jangla, a linear distance of 47 km from the present snout position. Presence of so many characteristic glacial landforms leave no doubt in one's mind that, at one time in the past – most likely during the last phase of glacial activity 10,000 years ago – Bhagirathi Valley must have been more glacierized than at present; and the Gangotri glacier must have extended at least up to Jangla.

## Medieval Evidence

*– References from the Classic Literature*

The word Gangotri stands for Ganga + *utri* or Ganga's descent. The glacier has become a part of the legend that speaks of the descent of the Ganga from heaven and can take pride in being the first glacier in human history, to be revered and understood by a human, Bhagirath, possibly 5,500 odd years ago. In Skanda Purana, Bhagirath is quoted to have said, "Then came down from the sky, Ganga the daughter of the snowy mountains, and *Mahadev* (Shiva) received it (Ganga) on his own head".

Let it be presumed, and rightly so, that Bhagirath was an explorer who performed the pilgrimage as penance to trace the source of this mighty river. What Bhagirath may in fact have stated, when he had the view of the entire glacier from a point up in the mountains, could be, "Ganga coming from the skies frozen around the shoul-



*Birch and Deodars at Chirbasa, ahead of Gangotri*

ders of a mighty peak that appeared like the *Shivling* – a personification of Lord Shiva". Bhagirath visualized that if the whole glacier would melt all at once, the waters so released would cause havoc down below. In fact, it would be disastrous. And he apparently stated it as such. That, in due course, became the legend that Lord Shiva held the river back in his locks lest Ganga's torrent cause havoc. Legend further tells us that, "Ganga, when it finally managed to come out of the intricate dark locks or moraine ridges of Shiva, which are as fearsome and large as the Himalayas itself, was still so powerful that it went down to the netherworld before coming on the surface. The word *pataal* or nether world is an obvious reference to the waterfall, or Patalganga, at Gangotri.

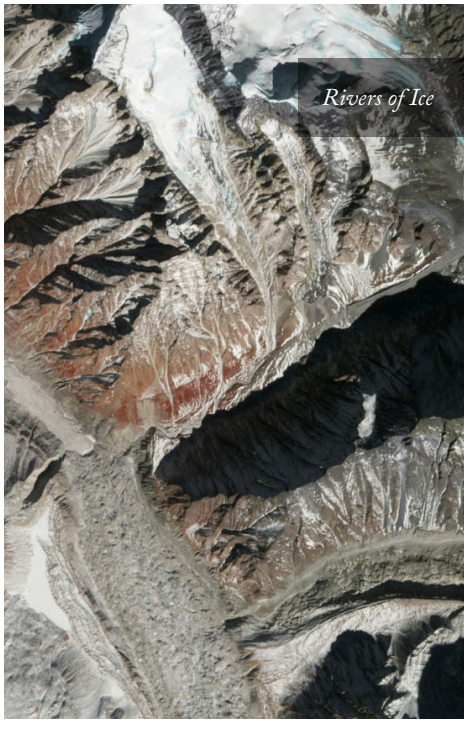
Be that as it may, Bhagirath's metaphorical reference of the Shivling Peak, moraine ridges and the water fall at Gangotri clearly indicates that, at the time of Bhagirath's visit, the snout of the Gangotri glacier must have been at and around Gangotri town. Obviously, there was no ice cave, as no mention of Gaumukh has been made, and the glacier apparently must have been in active phase. This view is held by the head priest and other holy men around the shrine of Gangotri who were interviewed by us.

Taking the three possible snout positions, and different periods of time into consideration, Jangla (10,000 years ago), Gangotri (about 5,500 years ago, based on secular retreat) and the present position at Gaumukh, it can be concluded that the glacier has vacated a total linear distance of 47 km in about 10,000 years, the glacier would appear to have shown an average secular retreat of 27.5 m per year, during the last 500 years.

Snout of the Gangotri glacier marked by a prominent ice cave that is renowned under the name of Gaumukh – meaning mouth of the cow – has been a celebrated destination for explorers and pilgrims over the centuries, for it is where according to them that Ganga originates. The earliest photograph of the snout is that of Samuel Bourne's published in 1863. Yet another picture of the snout of Gaumukh, was published in 1870. Both these photographs are now in The Oriental and India Office Collections in the British Library, London, U.K. Griesbach, of the Geological Survey of India visited the glacier snout in 1889 and made a sketch of the snout front showing Gaumukh located on the western side of the snout. John Bicknell Auden of the Geological Survey mapped and photographed the glacier snout in 1935 and has, since, been followed by several teams from GSI and some other institutes in recent years. A comparative study of the photographs of the snout taken, from time to time, show that the position of Gaumukh has been shifting from the western limits to the eastern limits of the snout expanse.

## Current Scientific Observations

Birbal Sahni Institute of Paleobotany, Lucknow, has dated the trees growing over the old terminal moraines at Bhojbasa, about 12 km downstream of the present Gaumukh to be about 415 years old. This would mean that the terminal moraines at Bhojbasa would be about 500 years old, as some time gap must have occurred between the vacation by the glacier and growth of vegetation. Taking that as the base, Geological Survey of India teams have, since 1935, been monitoring the snout of this glacier and, as a part of the monitoring activity, map of the snout front has been prepared at various times. Comparison of the snout positions between 1935 and 1996 has revealed that the glacier front, especially the position of the ice cave Gaumukh, has been constantly changing and the glacier has retreated by about 1,100 m during the period of 61 years (1935 to 1996), an average secular retreat of 18 meters a year.

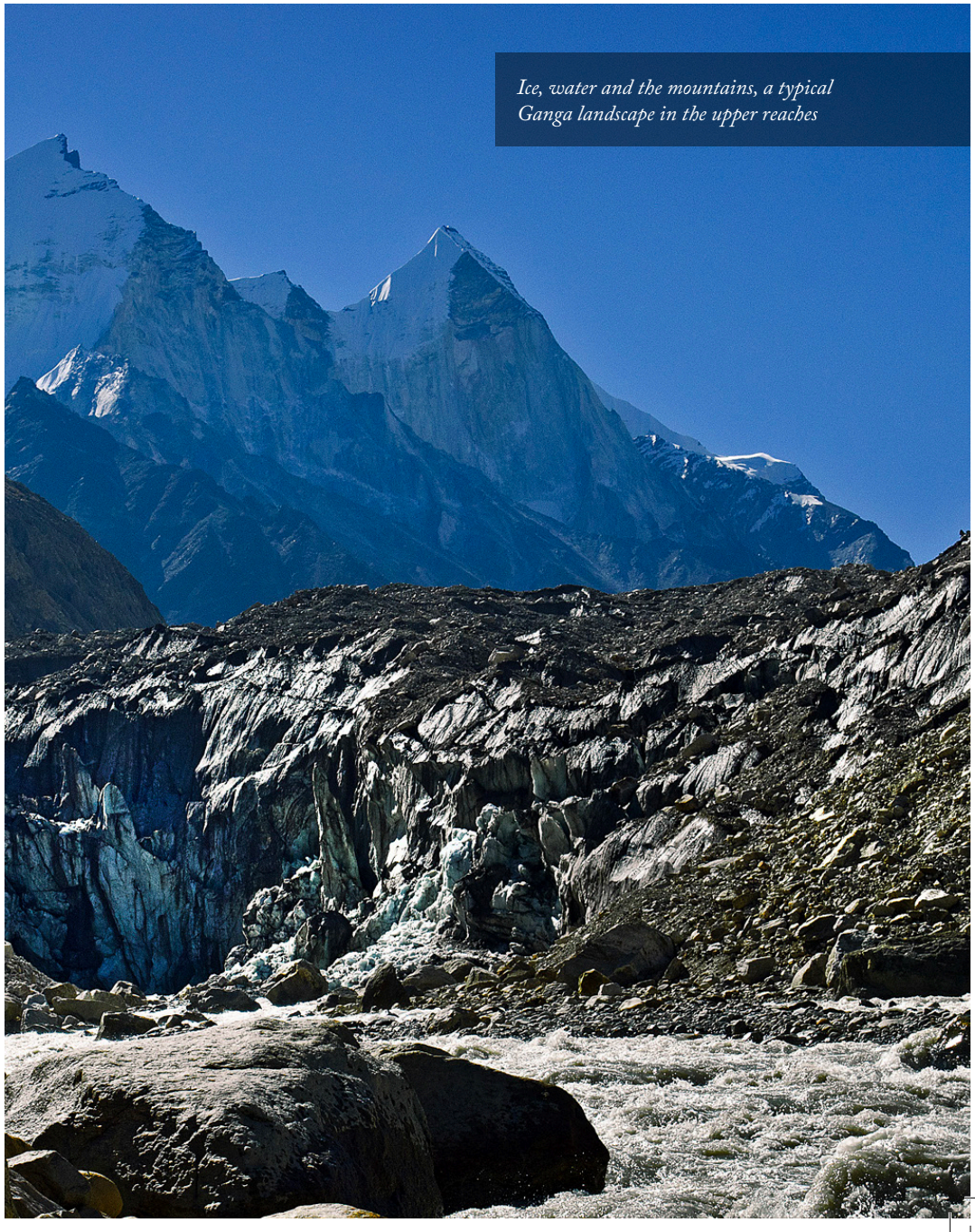


A recent study, with the help of satellite imagery has revealed that the position of Gaumukh along the eastern limits has further retreated at an average of about 15 meters per year in 2001 and 2002. Raktavaran Nala, melt water stream from the Raktavarna Group of glaciers, that had been flowing sub-glacially till up to 2002 has eroded away the glacial ice on the eastern side and has now started flowing along the valley wall bypassing the eroded glacial ice.

## Projected Life Span *of the* Gangotri Glacier

Several recent publications have postulated the frightening prospect of this glacier vanishing from the surface of earth in the immediate future. One publication has gone to the extent of giving 2035 as the deadline. Field data does not, however, seem to indicate any such impending catastrophe. Retreat of 15 to 18 m or so per year is indeed a cause of concern, but by limiting global warming we can work towards slowing down the trend. Let us not forget that some of the glaciers in Columbia and even in Alaska have recently shown an annual retreat of more than 200 m.

In the words of Bhagirath, "Ganga, one day shall be recalled to the heavens!" Reading between the lines, it connotes the fact that even Bhagirath realized, thousands of years ago, that this glacial river having come from the skies shall one day return. If we assume that this glacier will continue to retreat, say at the rate of 15 to 18 m a year, as it is doing at present, even then it will take almost 1,600 to 2,000 years for the glacier, to disappear.



*Ice, water and the mountains, a typical Ganga landscape in the upper reaches*

# Ganga Jal

## *Elixir Divine*

*Divine Waters, Banaras*

Of all the ideas that permeate Indian consciousness, the most significant perhaps is the concept of water as a life force. Ganga waters occupy an even more exalted position and are considered the absolute pinnacle of purity.

As a clearly defined object, with an origin, a middle course and a merging with the oceans, the river is a definite geographical entity. But the symbolism around the river and the connotations of purity leading to ritual worship are a human interpretation. Usually, ritual is dismissed as repetitive and meaningless, often misrepresented as given to acts of mass hysteria. The twelve-yearly Kumbha Mela could be cited as an example of this, and the scientific mind will only shudder to think of the consequences of holding such a mass gathering especially in times of a pandemic.

However, there is little doubt that the devout will flock to the river as always. The unwavering human faith in the river is explained by the number of bustling pilgrimage centers all along the various courses of the Ganga and its tributaries. Apart from beliefs, scientific facts about Ganga being a natural phenomenon, a part of the earth's water cycle, have been known in India since ancient times. Texts like the Prashna Upanishad (Hume, 1921) have written extensively of the natural expanse of the river. Despite the growth of scientific education and easy access to satellite imagery, and the deterioration of the waters, Ganga as a deity is very much alive today, as it was centuries ago.

*"Ritual purity of Ganga water or Gangajala has persisted as a matter of faith across the Indian sub-continent"*

*Gartang Gali, a skywalk bridge on the rockface and the Jad Ganga below, Uttarkashi*

## *In the* PAST

According to Sen (ibid.), Proto-Hindu scriptures pit human finitude against eternal creation (*kaala* and *akaala*) narrating stories of how the world came to have always straddled the divide between god and nature, cosmology and ecology. According to the Matsya Purana (pub. 1892) Vishnu, the keeper of all creation, took the form of the fish (*matsya*) avatar during the great deluge to save the world. Many of his insignia are aquatic: ammonite (*shaligrama*), conch shell, lotus, the symbology emanating from the waters of creation. Ganga in Hindu mythology is the purest emanation of Vishnu in fluid, natural form and therefore assumes a central place in the civilization and culture of the Indian sub-continent.

Ritual purity of Ganga water or Gangajala has persisted as a matter of faith across the Indian sub-continent. Many would argue that this is not just a religious imaginary, and indeed the waters, stored for long periods of time, do not show signs of putrefaction. The concept of purity has been associated with Ganga since times immemorial. Vachaspati Misra, in his treatise Tirthachintamani, cites the Skanda Purana to declare that the waters of the Ganga are secreted directly from the cosmic body of Vishnu, the divine in liquefied form. Not only are one's sins dissipated by immersion in this water, but just a sip can deliver the merits of a Vedic *Ashwamedha*, the horse sacrifice. Similar blessings are acquired casting one's eyes on the river (*Gangadarsanam*). Death cannot defile one who has been given Ganga water, or one who dies immersed in Ganga waters (*Gangajalmarana*) or while besmeared with Ganga clay.

Sacred texts, mythology and folklore are replete with instances of the curative powers of the holy waters. For instance, a story narrated in the Adi Granth talks of a leper about to drown himself in the Ganga in the hope that he would be free of the contagion at least in death, owing to the touch of the Ganga. Kabir's son, Kamaal, who was watching the scene, asked the man to desist from such an act and instead, sprayed some Ganga water on his body. The man was cured and offered a lot of wealth to Kamaal. Kabir, the weaver saint, later admonished his son for getting tempted by the lure of the lucre.

Little wonder then, that Al Biruni in his Tarikh al-Hind mentions that the Shiva idol in the Somnath Temple, constructed by the Solanki Dynasty of Gujarat, was washed daily with urns of Ganga waters brought from hundreds of miles away. The Mughal emperor Akbar drank only Ganga water, and extolled its purity and taste, calling it the source of life, the *ab-i-hayaat*.

Ganga water not only holds great spiritual and cultural significance, but its unique, natural characteristics make for fascinating studies and scientific inquiries. A container or vial of sacred water from Ganga, known as *Gangajal*, can be found faithfully stored in most Hindu homes, and this water has often been observed to remain fresh for long periods. These observations and many other healing qualities that Ganga are believed to possess are not purely faith-based beliefs but have now been supported by much scientific evidence and research.

***"A container or vial of sacred water from Ganga, known as Gangajal, can be found faithfully stored in most Hindu homes"***

*Studying the river scientifically*

# Scientific Evidence

The British recorded some of the earliest scientific findings related to the unique qualities of Ganga waters. The British physician, C.E. Nelson, observed and recorded that even the dirtiest sections of the Ganga, such as a sample taken directly from the mouth of the Hooghly, remained fresh during the long boat journey back to England. Officials of the British East India Company, also preferred using *Gangajal* for their three-month journeys back to England stating that the water stayed "sweet and fresh." The Maharaja of Jaipur had *Gangajal* brought in massive silver urns for his own personal use.

In a paper written by British physician, E. Hanbury Hankin, published in the French journal Annales de Institut Pasteur in 1896, it was observed that the bacterium, which causes the deadly Cholera disease, could be killed within three hours of being treated with water from the Ganga. However, the same bacterium continued to thrive in distilled water even after forty-eight hours. The unique factor in *Gangajal*, now known to be a virus, which consumes and destroys disease-causing bacteria, was amongst the first modern citations

*The Gaumukh Glacier with Shivling Peak in the backdrop*

of Bacteriophagy for the river water. Additionally, Felix d'Herelle, a French microbiologist, working on the river in 1927, was amazed to find that no germs existed in a sample of *Gangajal* extracted from an area just a few feet below floating corpses that had died of dysentery and cholera, where one would typically predict the existence of millions of harmful microbes!

In addition to its snowy origins leading to purity, by continuously flowing and rubbing against many rocks, flora, mosses, and other natural growth that exist along her upper stretches, Ganga is believed to become saturated with minerals and enriched with nutrients giving the river water antiseptic qualities.

Ganga's high oxygen retention capacity, especially in the upper stretches of the river in the Himalayas, is yet another reason why her waters do not putrefy even after long periods of storage. Through a comprehensive three-year (1982-1984) study, D. S. Bhargava, an environmental engineer at the Indian Institute of Technology, then the University of Roorkee, found that Ganga's oxygen retention capacity is fifteen to twenty-five times higher than any other river water in the world. Although the massive number of organic pollutants dumped into Ganga could have easily consumed the oxygen content of the river water, some unknown mystery factor, catalyzed by unidentified microbes had been able to replenish the river's oxygen content, the research team found.

In Indian spirituality, water is one of the five fundamental elements that make up all of creation. Although water is a tangible form, it is also fluid, ever changing and dynamic. In a popular study conducted by HADO Research Institute in Japan, it was found that the crystalline structures of frozen water respond to the positive and negative vibrations of their external environment. In this study, the structure of stagnant water drastically changed from the normal structure of water when offered with prayer, *mantra*, or positive emotions such as love and gratitude. Similar studies have been conducted by the organization,

Ganga Ahvahan, which tested and analyzed the crystal structures of samples of Ganga taken from different sources along the river. It was found that Ganga's crystal structures remained largely unaltered even with large stretches of damming and pollution in the upper stretches of the Ganga, especially in places where devotees congregate, make offerings or chant to the river.

Ganga truly is unique from other bodies of water. With deep scientific and social implications for the survival of humanity, there is still much to learn about the Ganga waters and ensuring the river's preservation as India's prime spiritual as well as natural heritage is akin to preserving the very idea of India.

Despite the high pollutant load in the river water, most Indians are convinced of the efficacy of *Gangajal*. Today, it is scientifically proven that the quality of drinking water is determined by four major factors: physical, chemical, radioactive, and microbiological. Water quality is scientifically measured through various factors such as total hardness, pH value, biochemical oxygen demand, dissolved oxygen, chemical oxygen demand, oxidation-reduction potential, conductivity, total suspended and total dissolved solids, and the faecal coliform counts. Other indicators such as floating and suspended matter, turbidity, colour, odour, and taste are also used. Values for each of these benchmarks is clearly established. During our documentation, water samples were tested on many of these counts with varying results. But, with determination, discipline and conservation practices in all areas, adoption of better agricultural methods and ensuring that industrial pollution and urbanisation does not contaminate the river, its tributaries and feeding channels, we can still reverse the trend. More significantly, we must return to our traditional knowledge systems, understand the river and treat it as a mother.

*A mugger(Crocodile) rests by the Ganga at Jhilmil Reserve*

# River Geographies

## *Knowing the Flow*

*The river takes a sharp U-turn, an ox-bow lake in the making*

Now that we know how the river was mapped, and why Ganga waters are an invaluable gift, let us try and understand the flow of the river, as it descends to the earth and makes its epic journey from its source to mouth.

***"The Bhagirathi is considered the source stream of the Ganga"***

## Course *of the* Ganga

The Bhagirathi is considered the source stream of the Ganga. It originates from the Gangotri Glacier at Gaumukh in the Western Himalaya and merges with the Alaknanda River at Devprayag, where the Ganga is formally formed. After this, the Ganga flows through narrow Himalayan valleys and reaches the plains at Hardwar. At Hardwar, the Bhim Goda Barrage diverts water to the Upper Ganga Canal for irrigation. Further down, two barrages at Bijnor and Narora, divert the water into Madhya Ganga Canal (during Monsoon) and Lower Ganga Canal. Thereafter, the river is joined by the Ramganga River at Kannauj and the Yamuna River at Allahabad. Downstream of Allahabad, the river is met by the Tons, Son, Punpun, Gomti, Ghagra, Gandhak and Kosi Rivers flowing through Banaras, Patna, and Bhagalpur. At Pakur, the Farakka Barrage regulates the flow by diverting water into a feeder canal feeding the Hooghly. Downstream of this barrage, the Ganga bifurcates to form the

*A riverine island emerges near the Vindhyas*

Hooghly River, which flows through West Bengal before merging into the Bay of Bengal, and the main branch which enters Bangladesh as the Padma River.

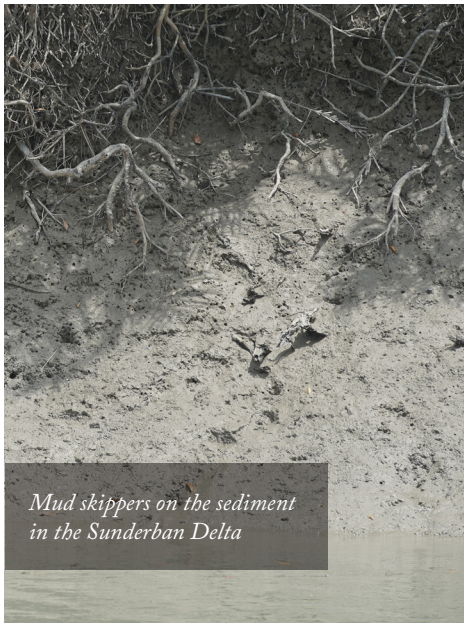
The main stem of the Ganga may be divided into three stretches. The upper stretch from Gaumukh to Hardwar, the middle stretch from Hardwar to Banaras, and the lower stretch from Banaras to Gangasagar. These divisions reflect variations in Geology, Geomorphology, soil types, climate, flora and fauna, and social and economic indicators.

Geologically and Geomorphologically speaking, the Ganga River Basin comprises of three large divisions of the Indian subcontinent, namely the Himalayan young fold mountains and the Central Indian Highlands, the Peninsular Shield, and the Gangetic Plains.

The Ganga River Basin occupies the Himalayan foredeep in the northeast-southwest-oriented elongate depression (Tandon and Sinha, 2008), formed in response to the uplift of the Himalaya, after the collision of the Indian and Asian plates. The average gradient of the basin in 20 m per km. The Gangetic Plain is made of two discrete hinterlands – the Himalayas in the north and the cratons to the south. It evolved because of the filling up of the foredeep basin with thick layers of sediment derived chiefly from the Himalaya and partly from the hills of the northern peninsular India (Valdiya, 2016). The terrain along the Ganga is divided into two parts, the northern part composed of alluvial terrain of Quaternary age, and the southern part, composed of the consolidated crystalline and sedimentary formations of Archaean to Palaeozoic age. Two distinct physiographic and chronological units are recognised in this plain, the older alluvium comprising coarser sedimentary units of the *Banda, Banaras* and *Bhangar*, and the newer alluvium consisting of the *Khadar, Bhur* and *Bhabar*.

Ganga, in its upper stretch, from Gangotri to Hardwar, flows through steep, mountainous valleys of the Himalaya, consisting of a partly confined floodplain and braided channels. The middle stretch, from Hardwar to Banaras, winds through the Gangetic plain region and consists of piedmont, craton margin and valley interfluve landscape, a partly confined flood plain, and braided and sinuous channels (Sinha et al., 2017).

The lower stretch of the Ganga River from Banaras downstream passes through the Gangetic plain and before merging into the Bay of Bengal, forms the distributary delta system south and east of Farakka. It is made of craton margin and valley interfluve landscape settings, a partly confined and confined floodplain, and sinuous, braided channels and anabranches (Sinha ibid.). The Sunderban Delta was formed in the Tertiary period because of tectonic movements in the north-western Punjab and the south-eastern flow of the Ganga River, resulting in deposition of sediments in the Bengal basin. The delta complex formed due to a combined contribution of the Ganga and Brahmaputra Rivers is the world's largest delta covering an area of 60,000 sq km.



*Mud skippers on the sediment in the Sunderban Delta*

*Water Buffalo and Egret on the Sacchrum grasses*

# Soils

The Ganga Basin is characterized by a wide variety of soils. The upper stretch of the basin consists of montane and sub-montane soils covering around 1.59% to 4.28% of the area respectively, are highly susceptible to erosion. The middle and lower stretches of the Ganga Basin are mainly made of alluvial soil covering 52.44% of the area, again quite susceptible to erosion. Red soil covers 12% of the area and is also easily given to erosion. Red and yellow soils and mixed red-and-black soils cover 8% of the area and they are moderately erodible. Deep black soils and medium black soils cover 14% of the area and have low erodibility. The remaining 6% area has shallow black soils and lateritic soils with low erodibility. Therefore, it can be said that the Ganga basin is highly susceptible to erosion.

# Climate

Due to significant variations in the geographical extent of the Ganga River, including altitudinal variations, specifically at the source, the temperature along the river basin varies between $5^0$ C and $45^0$ C. The climate is positively influenced by the South-West Monsoon which extends from June to October. During the monsoon, the basin receives almost 85% of total annual rainfall. The annual average rainfall varies between 39 cm and 270 cm, with an average of 110 cm. The average annual temperatures are high throughout the basin, except the high elevation areas of the basin. They rise sharply from March to May from $30^0$ C to $45^0$ C. The average temperature of the basin during winter ranges from $5^0$ C to $30^0$ C. The upper stretch of the river, close to the snow line, receives snowfall and 100 cm to 250 cm of annual rainfall. The middle stretch and most of the lower stretch the river flows through the Gangetic plains. The average annual rainfall in the plains varies between 60 cm and 160 cm with the Western parts receiving lesser rainfall, that is, from 60 cm to 140 cm in comparison with the eastern parts that receives from 90 cm to more than 160 cm. The northern parts of the plains receive high rainfall compared with the southern parts. Temperature varies from $5^0$ C to $25^0$ C in winter and from $20^0$ C to more than $40^0$ C during summer in the Gangetic Plain. The climate of the Sunderban Delta region of the lower stretch is characterised by relatively high temperatures and wind throughout the year. The average annual rainfall is 166 cm. The daily minimum temperature during winter

varies between $2^0$ C to $4^0$ Cand rises to a maximum for $43^0$ C in March and may exceed $32^0$ C during the Monsoon. Thunderstorms in the afternoon are common during summer and known as *Kalbaisakhi* or disastrous winds of Baishakh.

The Ganga Basin is one of the most densely populated river basins in the world with a population of more than 600 million people. It supports around 43% of the Indian population, an average population density of 700 individuals per square kilometre, the density near the Deltaic zone being over 1000 individuals per square kilometre. There are 30 cities, 70 towns and thousands of villages located along the banks of the Ganga. The major cities along the upper stretch of the Ganga are Srinagar, Rishikesh and Hardwar in Uttarakhand. Major cities along the middle stretch within the state of Uttar Pradesh are Bijnor, Narora, Kannauj, Kanpur, Allahabad, and Banaras. The lower stretch passing through the states of Uttar Pradesh, Bihar, Jharkhand, and West Bengal has Mirzapur, Patna, Bhagalpur, Sahibganj, Farakka Bahrampur, Serampore, Howrah and Kolkata as major cities.

*Typical delta landscape as the river merges into the Bay of Bengal*

# Nurturing Biodiversity around Ganga

## *Magical Macro Fauna*

*Butterflies mud-puddling in a Himalayan stream*

Ganga is undoubtedly critical for human survival in India. However, it is also important that we appreciate the river's role in supporting a mindboggling range of animal biodiversity. It would not be incorrect to say that the number of species supported by the river has not even been fully studied or appreciated.

The waters of Ganga are rich in diverse fauna. Ganga and her tributaries support 140 species of fish, such as featherbacks, barbs, walking catfish, gourami and milkfish to name a few, and over ninety species of amphibians. A study examining the stretch of Ganga between Rishikesh and Kanpur found forty species of zooplankton, four species of crustaceans, fifteen molluscs, twelve species of freshwater turtles (four of which are endangered), and the Smooth-coated otter, Short clawed otter and Eurasian otter. Endangered Mugger and Gharial crocodiles live in her waters, as well as the critically endangered Gangetic shark (*Glyphis gangeticus*) down near the Bay of Bengal, now rarely seen. These fish and other creatures help to clean the river and are a vital part of the river's ecosystem, yet many of these species are now facing extinction with the issues of pollution, low flow, exotic species.

Ganga and some of her tributaries are also home to the endangered Gangetic Dolphin (*Plantanista gangetica*). Historically, Indians have known about this splendid creature since times immemorial, but it was officially and scientifically discovered by Roxburgh in 1801. The animal abounds in our ancient literature and was also mentioned as *Khukabi* in Babarnama during the Mughal period, when the rural folk used to burn dolphin oil for lighting their homes. However, it was John Anderson who

*Gangetic Dolphin*

first published a scientific report on the Dolphin in 1879 after which there was no scientific information available on this species for the next one hundred years. The Dolphin was declared the National Aquatic Animal and has been included in the Ministry of Environment and Forests' Wildlife Protection Act since 1972. Prior to the initiation of water resource development activities in the Ganga during the 19th century, the Gangetic River Dolphin was distributed all the way from Haridwar to the Sunderbans.

Sadly, it has been estimated that only 1,200 to 1,800 individual dolphins exist now in the Ganga River System, and it is considered vulnerable according to the IUCN Red-List. According to reports, the Dolphin population, which was about 10,000 in late 19th century, reduced to 3,526 by 2014. Dolphins are now restricted to the Ganga and its larger tributaries but have disappeared completely from the Haridwar-Bijnor Barrage, which is about 100 km downstream of Haridwar. We sighted several Gangetic Dolphins at the confluences of rivers in Southern Uttar Pradesh.

Otters form a well-marked group representing the family Mustelidae. They are mammals adapted for a semi-aquatic life. They are the principal predators of aquatic environments and indicators of the health of wetland or riverine systems as they are sensitive to degradation along the food chain and habitat. Otters are the top predators of aquatic ecosystems and shape the faunal species composition of aquatic ecosystems they inhabit. Of the 13 species of otters, five species occur in Asia, and three of them are found in India, including the Ganga River basin. Otters usually live in low densities, are elusive and are largely nocturnal, thus making direct sightings difficult.

In addition to the creatures living in the river system, thousands of species live along the banks of Ganga and depend on her waters for life. In the uppermost regions of the river in the Himalayas, many species rely on Ganga, such as deer, including the musk deer and the Himalayan Tahr, Boar, Wildcats, Wolves, Jackals, Foxes, and the elusive endangered Snow Leopard. As one continues downstream, endangered Tigers, Elephants, Sloth Bear, Four-horned Antelope (*Chousingha*) and the Large Indian Civet can be found, among other creatures such as the Rhesus Macaque and the Gray Langur.

In the large deltaic region of Ganga, known as the Sundarbans, a rich diversity of animals exists on her waters. Many large animals live here,

including the critically endangered Royal Bengal Tiger as well as the Barking Deer, Axis Deer, Wild Boar, Mongoose, snakes such as the King Cobra and Pythons, Monitor and Salvator Lizards and the Olive Ridley Turtle, among many others. The Sundarbans are also home to the largest estuarine crocodile in the world.

The entire stretch of Ganga and her tributaries is also home to thousands of birds that rely on Ganga for water and fish, with many settling in water-covered swamp areas along her banks. Over forty-eight species of bird have been identified between Rishikesh and Kanpur alone, including Mynas, Kites, Parakeets, Crows, Kingfishers, Partridges, Fowl, Ducks, and Snipes. The Sundarbans is a large breeding ground for a wide variety of birds, including the Spot Billed Pelican, Cotton Teal, Herring Gull, Caspian Tern, Grey Heron, Large Egret, White Ibis, Osprey, Peregrine Falcon and a variety of owls and Sea Eagles. Five protected areas along the Ganga support birdlife found nowhere else in the world.

While the Gangetic Dolphin is listed as an endangered species according to the International Union for Conservation of Nature's Red List, the Gharial is critically endangered in the same list. The other species include birds such as the Black Bellied Tern and Indian Skimmer; turtles such as the northern river Terrapin, Three Stripped Roofed Turtle, Red Crowned Roofed Turtle; and the Golden Mahseer Fish. The Sarus Crane, the Mugger Crocodile and the Snow Trout have been put in the vulnerable list.

*Turtles*

***"The entire stretch of Ganga and her tributaries is also home to thousands of birds that rely on Ganga for water & fish "***

Mother Ganga is kind, not just to humans but also to all species that depend on its fresh waters for survival. It supports 5 species of aquatic and semi-aquatic animals, 140 species of water birds, 25 species of reptiles, 90 species of amphibians and 236 species of fish in habitats ranging from the Himalayas to the Gangetic Plains, from the semi-arid lands to the Deccan-peninsular, leading to the deltaic. The Ganga basin extends over more than one million square kilometres and encompasses parts of India (about 80% of the total basin area), Nepal, China, and Bangladesh. The length of the main channel is some 2,525 km, while altitude ranges from 8,848m in the Himalayas, to sea level in the coastal deltas of India and Bangladesh. The basin occupies a quarter of India's land mass and supports a large human population. But if humans are to survive and thrive for long in this region, the survival of the fauna is critical too.

The *Betula utilis* or *Bhojpatra* or the Himalayan Birch grows in the Himalayas at an altitude between 2500m and 4500m above sea level frequently on slopes with unstable soils or under high snow pressure. They generally occur in groves and forests that receive minimal precipi-

tation supplied by snowmelt. They are also found on northern shady slopes and ravines. This deciduous tree is considered sacred since it is found only at the tree line and is endemic to the Himalaya. The pure white bark, that easily peels out, was the preferred parchment as the base on which sacred texts of India were written, even before paper was invented. Even today, many sacred ancient texts are found written on *Bhojpatra* parchment. The Himalayan Blue Pine is a species commonly found above 3400m. It demands light and well-drained porous soils. The Deodar tree is commonly found in the Himalayas and is a soil binder that prevents erosion. The Sal Tree is found throughout India, between 100 m to 1500 m altitude. It is critical in slope stabilization and soil binding near rivers. Its leaf litter aids in nutrient cycling.

The *Semal* is found commonly and is a pioneer species for restoration of native woodland. The *Sandan* Tree helps in nitrogen fixation of soils.

Black or Java Plum is the Indian Jamun, widely found along the Ganga. It helps in reclamation of water logged lands and bank stabilization. *Gular* or Cluster Fig is a Ficus Tree which supports great biodiversity and the leaves are used in medicines. Banyan, Peepal etc. are the other Ficus trees. *Mahua* or Honey Tree is found in the foothills, and edible fruits make for liquor ferment. In the delta are found the *Garjan, Goran, Tora* and *Hundul*, true Mangroves with stilt and prop roots that are India's defence against the marauding cyclones that strike the coastline.

*Landscape on Sagar Island, Gangasagar*

# Reptiles, Turtles, Amphibians & Fish *in the* Waters

## *Indicators of River Health*

*Sun Basking Turtles on a mid-stream rock in Rajaji Tiger Reserve*

Crocodilians are represented by twenty-four living species. In India, the mugger (*Crocodylus palustris*) and estuarine crocodile (*Crocodylus porosus*) represent the family Crocodylidae, and gharial (*Gavialis gangeticus*) represents the family Gavilidae. These species are distributed in the Ganga and its tributaries. Presence of crocodiles increases yield of fish and improves health of fish stock, since crocodiles eat ailing fish. Common fish are eaten by crocodiles and thus they maintain balance in the fish species assemblage.

Gharials have been historically restricted to the perennial Himalayan River systems in the northern part of the Indian subcontinent. Indian rivers that formerly supported large populations of Gharial included the Ramganga, Ghagra, Gandak, Kosi and Girwa. The species were on the verge of extinction in India by mid 1970s, and the population had plummeted to to fewer than 200 individuals when a captive breeding programme was initiated in 1975, taking the population to 1,200 by 1995. Gharial population has again showed a decline since 1999.

At present, Gharials have been reported from the main stem of Ganga River between Bhagalpur and Sultanganj and from its tributaries like Ramganga at Corbett Tiger Reserve, Son River at Son Gharial Sanctuary, Girwa River at the Katarniaghat Wildlife Sanctuary and Chambal River at National Chambal Sanctuary. Chambal River has the largest sub-population of breeding Gharials in the wild, with around 48% of the total population. The presence of gharial is important for health of the river. It eats sick fish and disappearance of gharial from the ecosystem signifies collapse in ecosystem due to polluted water or drop in water levels.

*A crocodile in the bush at Jhilmil marshes near Hardwar*

The Mugger is one of the most widely distributed species owing to its adaptable nature. This species thrives in stagnant water, lakes, reservoirs, tanks, and rivers with placid currents. It is present in much of the Ganga River channels. Significant populations occur in lower Ganga (Bihar and Jharkhand), Chambal River (Rajasthan and Madhya Pradesh). In Uttarakhand it is found in the Ganga region in Rajaji National Park and parts of Hardwar and Lansdowne Forest divisions. In the Ganga River Basin, this species has been reported from the Hastinapur Wildlife Sanctuary and the Ramsar Site between Garhmukteshwar and Narora. The Estuarine Crocodile is another important species of the Sunderban Delta.

India has twenty-four species of freshwater turtle and four species of tortoise and ranks among the top five countries in terms of importance of turtle conservation. Ganga provides habitat for fourteen testudines, that is, thirteen turtle and one tortoise species in the middle and lower stretches up to the Deltaic region. The turtles in Ganga are represented by nine hard shell species including *Batagur kachuga*, Three-striped Roofed Turtle (*Batagur dhongoka*), Northern River Terrapin (*Batagur basuka*), Crowned River Turtle (*Hardella thurjii*), Indian Roofed Turtle (*Pangshura tecta*), Brown Roofed Turtle (*Pangshura smithii*), Spotted Pond Turtle (*Geoclemys hamiltonii*), Indian Black Turtle (*Melanocheyls trijuga*) and Indian Tent Turtle (*Pangshura tentoria*), and four soft shell species like Indian Softshell Turtle (*Nilssonia gangetica*), Indian Peacock Softshell Turtle (*Nilssonia hurum*), Indian Narrow-Headed Softshell Turtle (*Chitra indica*) and Indian Flapshell Turtle (*Lissemys punctata*). Turtles play a critical ecological role by controlling aquatic vegetation, serve as scavengers and help maintain the health of rivers and lakes. Unfortunately, these remarkable reptiles are now facing extinction due to habitat degradation and poaching.

Amphibians play a pivotal role in both aquatic and terrestrial ecosystems. They are secondary consumers in several food chains. From the ecological perspective amphibians are regarded as good ecological indicators. Their responses have been used to indicate habitat fragmentation, ecosystem stress, impacts of pesticides, etc. Adult amphibians are one of the best biological pest controllers. Amphibian populations are currently undergoing a rapid decline due to habitat loss, over-population of banks, and fungal diseases. Amphibians are semi aquat-

***India has twenty-four species of freshwater turtle and four species of tortoise and ranks among the top five countries in terms of importance of turtle conservation***

ic vertebrates, and their life cycle is primarily dependent on freshwater resources. The eggs are laid in water or moist habitats, and the larvae grow in water bodies where they metamorphose into adults. The characteristic feature of this group is the presence of semi-permeable skin used for cutaneous gas exchange. This feature and the dependence of these animals on freshwater ecosystems, make them acutely sensitive and susceptible to slight changes in temperature, humidity, and air or water quality, thereby making them highly vulnerable to climate change.

Researchers have identified about 90 species of amphibians in the Ganga basin from altitudes as high as 3000 m amsl through the plains to the Delta. The endemic amphibian, the Chakrata Stream Frog (*Amolops chakrataensis*) is known only from the hill streams from Chakrata in Uttarakhand. Other frogs such as Indian Bullfrog (*Haplobatrachus tigrinus*), Himalayan Paa Frog (*Nanorana vicina*) and Nepal Paa Frog (*Nanorana minica*) have been reported from various stretches of the river.

The unique hydrology and geo-climatic conditions of the upper, middle, and lower stretches of the Ganga support distinctive fish fauna. Two species of stingray were found in the Ganga River up to Kanpur by Hamilton during his "Statistical and Economic Survey", conducted between 1807 and 1814. Later, stingray from the Ganga River were also reported at Bhagalpur. Another, the Gangetic Shark (*Glyphis gangeticus*), was reported. The earliest documented records of fish species from the Ganga River go back to 1822, when Hamilton recorded 272 freshwater fish species (Hamilton, 1822). A recent report by the Central Inland Fisheries Research Institute (ICAR-CIFRI, 2017) lists a total of 158 fish species from Tehri in Uttarakhand to Fraserganj in West Bengal, in the main stem of the Ganga River.

The most common fishes reported by Bilgrami (1991) in the upper stretch of the Ganga River are represented by *Schizothorax spp.*, T*or spp.*, *Wallago attu* and *Notopterus sp.* In the middle stretch, the most common species included the Indian major carps, and *Bagarius sp., Mystus sp., Hilsa sp.* and *Wallago attu*. Bilgrami (1991) expressed concern that the dominance of carnivorous species in the lower stretch of the river from Berhampur to Katwa could adversely affect the natural food chain. Sarkar et al. (2012) reported 10 exotic fish species, viz. *Pterygoplichthys anisitsi, Oncorhynchus mykiss, Oreochromis mossambicus, O. niloticus niloticus, Hypophthalmichthys molitrix, H. nobilis, Ctenopharyngodon idella, Cyprinus carpio, C. carpio (var. specularis)*, and *Clariasgariepinus*. CIFRI (2017) also reported these exotic species, with an additional exotic *Salmotrutta fario* from the Ganga River.

Golden Mahaseer (*Tor putitora*) is found in streams and rivers of montane and sub-montane regions, *Tor putitora* is a major Tor species of the mid-hill stretches of the Himalayan region. The species is listed as endangered in the IUCN Red List and has a declining population trend.

*Monitor Lizard in the Sunderbans*

It inhabits rapid streams with rocky bottoms, riverine wetlands, and lakes. Threats to the species include overfishing, the use of modern fishing techniques and alterations of habitats. The species was once abundant in Uttarakhand. In India, it is restricted to the upper stretches of the Ganga River.

Bronze Featherback (*Notopterus notopterus*) species is found in clear streams and brackish waters. The adults are found in standing and sluggish waters of lakes, floodplains, canals, and ponds. Population trend of the bronze featherback in the wild is currently unknown and it is listed as least concern in the IUCN Red List. Specimens of the species have been found in the Gomti River near Daliganj and from Khadra, at Lucknow.

Minor Carp (*Labeo bata*) inhabits ponds, rivers, and rivulets. It is a herbivorous column feeder. It is commercially exploited in the Ganga River and its tributaries. Size-selective harvesting of the species is a very common practice in riverine habitats. The abundance of the major carps was greater in the middle stretches of the Ganga River.

S*potted barb (Puntius sophore)* is a small-sized cyprinid, highly adapted to confined environments. Historically, the species was native to Bengal and common throughout the Gangetic provinces. It was reported from the Ramganga River and the upper, middle, and lower stretches of the Ganga River, including Kanpur, Allahabad, and Banaras.

It can be inferred that the populations of species such as the golden Mahaseer, Bronze Featherback and Spotted Barb are declining due to habitat degradation and over exploitation. An overall decline in fish landings is also evident throughout the stretch.

Reptiles, Turtles, Amphibians, and Fish are crucial to the health of the Ganga and their presence indicates hope for its rejuvenation. There is a need to conserve these species through widespread studies and programmes for awareness generation.

*Catch of the season*

# Winged Wonders

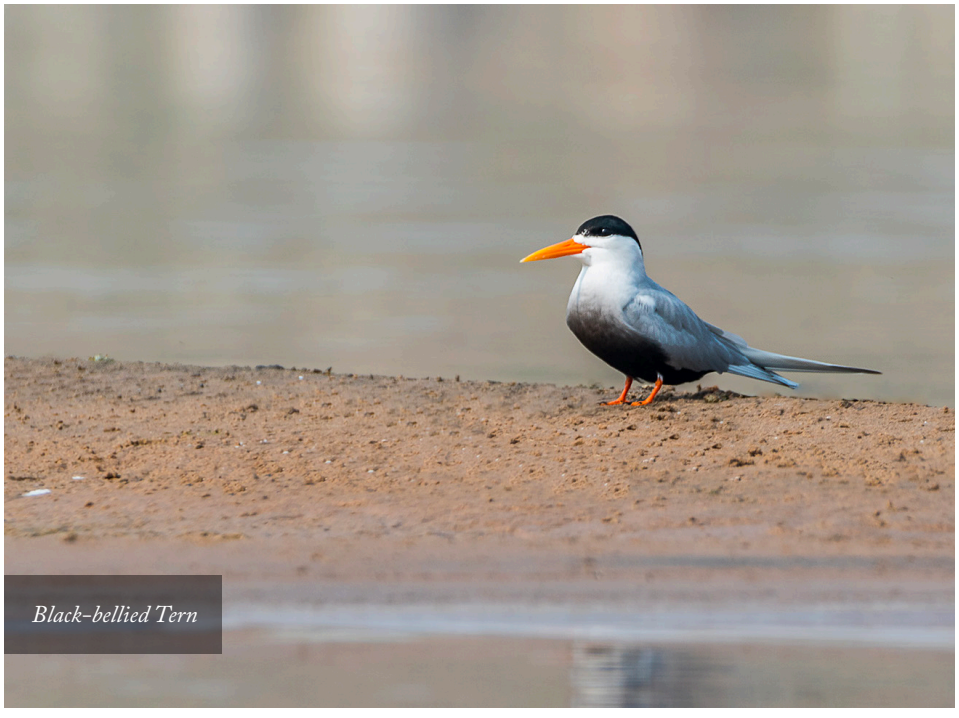
## *Birds along the River*

*Ruddy Shelducks in the Ganga Wetlands*

India is a global hotspot for birds with over 1340 or 13% of the world's species recorded from the country. Falling within the Central Asian Flyway, the region is utilised by 307 species of migratory water birds, most of them coming from Central and North Asia, at the beginning of the winter season. Of the 307 migratory species, two are critically endangered, five are endangered and 13 species are vulnerable. Out of the remaining 287 species, 10 species are near threatened and 277 species are least concern as per the IUCN Red list.

Water birds maintain the diversity of other organisms, control pests, are effective bioindicators of ecological conditions and act as sentinels of potential disease outbreaks. They also provide important provisioning and cultural services to humans.

The Ganga River basin has several seasonally flooded wetlands, permanent lakes, and marshes, which serve as major migratory water bird habitats. Some of these have been declared as protected areas such as Jhilmil Conservation Reserve in Uttarakhand, Surhaatal Wildlife Sanctuary in Uttar Pradesh, Kusheshwar Asthaan Bird Sanctuary in Bihar, and Udhwa Bird Sanctuary in Jharkhand. The Ganga River, with its mosaic of habitats, supports 140 bird species including 129 water bird species and obligate bird species. Apart from resident and migratory species, some iconic and globally threatened birds such as the Blackbellied Tern (*Sterna acuticuada*), Indian Skimmer (*Rinchops albicollis*), Sarus Crane (*Antigone antigone*), and River Lapwing (*Venellus duvaucelli*) also breed on the islands, sandbars, and banks of the Ganga River. The largest species richness along the Ganga River is in Uttar Pradesh which has 135 bird species. The least number of



*Black-bellied Tern*

species is reported from Jharkhand in the lower stretch. Very few systematic studies have been carried out on the distribution of water birds along the Ganga River, but the ones conducted in the past have recorded 46 species from Rishikesh to Kanpur covering the upper Ganga and middle stretches. In the middle stretch 120 species were seen at Narora. In the lower stretch, 23 bird species have been recorded from Munger in Bihar to Farakka in West Bengal. The barrages along the Ganga are also rich habitats for water birds and harbour several species.

The Black-Bellied Tern is a small, riverine island colonial nesting species of the family Laridae and is a resident breeder of the middle and lower Gangetic plains. It is listed as endangered in the IUCN Red List as it is almost extinct or rapidly declining across its range owing to destruction of its breeding habitat, collection of eggs for food, overfishing and flooding of nests. The species has been regularly found at the Vikramshila Gangetic Dolphin Sanctuary in Bihar. This species has not been reported from Uttarakhand and Jharkhand, but greater abundance is found between Narora and Kannauj, followed by the stretch from Sahibganj to Rajmahal and upstream of Ghazipur.

The largest crane in the Indian subcontinent, the Sarus, is a resident breeder of the Gangetic flood plains. It inhabits the natural wetlands, small seasonal marshes, flood plains, fallow and cultivated lands and paddy fields. The global population of the species is showing a declining trend and is listed as vulnerable in the IUCN Red List. The Indian population is also suspected to have decreased owing to loss and degradation of wetlands, and ingestion of pesticides used in agricultural practises. Uttar Pradesh seems to be the stronghold of the species with several encounters from Farrukhabad, Shahjahanpur and Hardoi Districts, along the Ganga River. The stretch between Brijghat and Farakka is particularly rich, with great abundance in Bithoor near Kanpur, Kannauj and Farrukhabad.

The Indian Skimmer is one of the three skimmer species of the world and the only one that is found in the Indian Sub-continent. This predatory fish-eating bird has a unique adaptive feature, uneven bills. The lower mandible is larger than the upper one. It is globally threatened, listed as vulnerable in the IUCN Red List with an estimated Indian population of 2500 individuals. It is found in Uttar Pradesh, Bihar, Jharkhand, and West Bengal along the Ganga River basin. It is most frequently encountered between Bijnor and Ghazipur. Seven nesting colonies have been recorded between Kachhla and Banaras. The maximum number of nesting colonies lie between Allahabad and Banaras.

The River Tern is a common riverine species, an island nesting bird, and a resident breeder in India. Globally, the species is showing a declining trend in its population and is listed as near threatened in the IUCN Red List. The nesting areas are vulnerable to flooding, predation, and disturbance. Abrupt declines have occurred in

> ***"The River Tern is a common riverine species, an island nesting bird, and a resident breeder in India"***

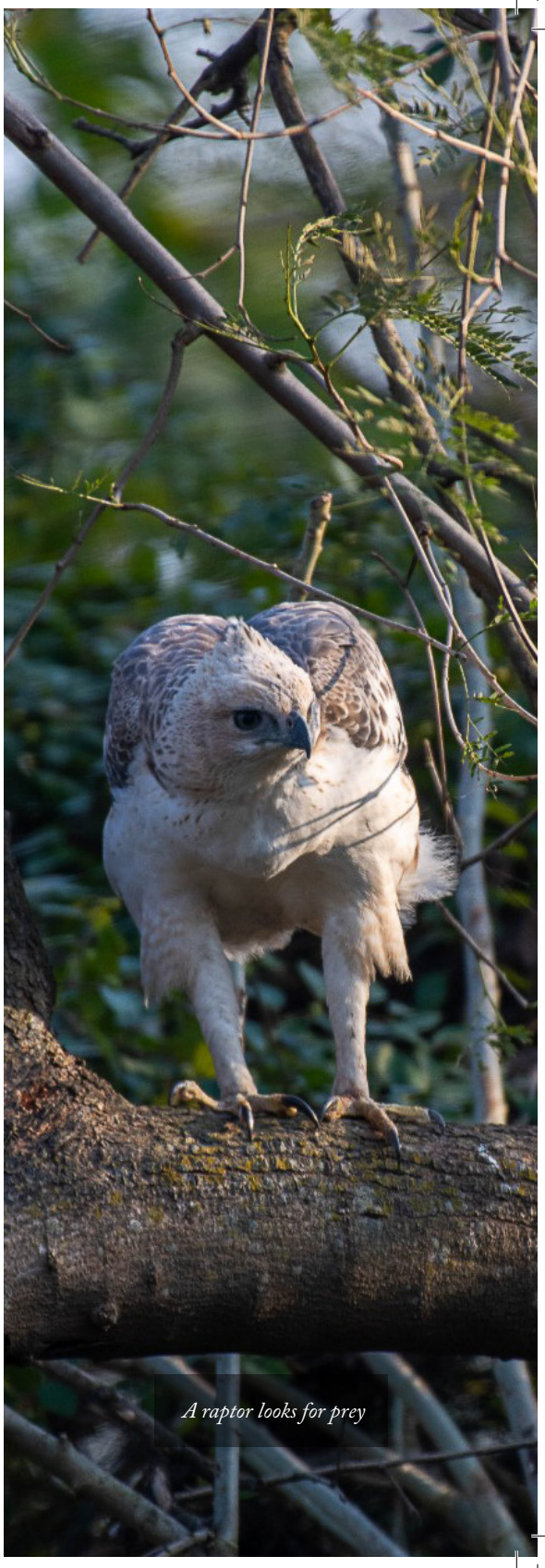
parts of South-East Asia. The sea species can be found along Narora-Farakka, a stretch, especially in the Vikramshila Gangetic Dolphin Sanctuary. The species is reported occasionally from the lower Gangetic Plain and the coastal zone of West Bengal.

The River Lapwing is a resident breeding riverine species in India, listed as near threatened in the IUCN Red List. The species is showing a moderate population decline. River Lapwings are common and widely distributed throughout the stretch of the Ganga, especially in the Gangetic plains of Uttar Pradesh, Jharkhand, and West Bengal. They are in great abundance near Kanpur, Bithoor, Farukkhabad, Kannauj, Manikpur, Ghazipur, Kachchla, Mirzapur and Bijnor.

The Painted Stork occurs commonly in the Indian subcontinent. There are estimated 15,000 to 25,000 individuals in South Asia, with populations declining due to hunting, wetland drainage and pollution. The species has been recorded in the Himalayan zone of Pauri Garhwal and Rajaji National Park. The species was found in Vikramshila Dolphin Gangetic Sanctuary and the Bijnor-Narora stretch of the Ganga River. The species is occasionally reported from Lower Gangetic Plain of West Bengal.

The Greater Adjutant (*Leptoptilos dubius*) is a member of the stork family, Ciconiidae. Its genus includes the Lesser Adjutant of Asia and the Marabou Stork of Africa. Once found widely across southern Asia, mainly in India, it is now restricted to a much smaller range with only three breeding populations. The stork is the pride of the Sunderban Delta.

Deeper studies on population trends and distribution of bird life along the Ganga are needed. It is clearly observed that wherever areas have been demarcated for conservation, bird populations are healthy. Agriculture close to the river channel is wiping out the habitat of several bird species along the Ganga. The riverine islands, ox-bow lakes, and mangroves deserve special attention.



*A raptor looks for prey*

# River Economies

## *Supporting Human Survival*

*Boats are the lifelines in the Sunderaban Delta.*

Ganga's cultural and spiritual dimensions far transcend its economic dimension. Yet, economic activity is essential for human survival, and Ganga's contribution to this aspect is immense. Ganga is India's most important and iconic river. It flows down from its glacial source in the high Himalayas to course through five states in the northern plains before draining into the swirling waters of the Bay of Bengal through the Sunderban Delta, the largest mangrove system in the world. Along its 2,500 km journey, the river deposits fertile silt and sustains a long procession of towns and cities.

The sprawling Ganga basin, an area of 8,60,000 sq km spread across 11 states, is the world's most populous river basin. It is home to more than 600 million Indians, close to half the country's population; and over 40 percent of the country's GDP is generated in this region. The basin provides more than one-third of India's surface water, 90 percent of which is used for irrigation.

## Agriculture

The Gangetic region is one of the most fertile agricultural regions on the

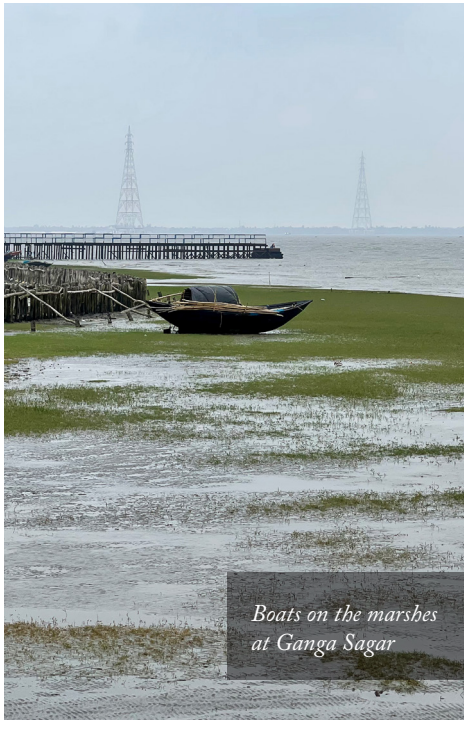
***"The sprawling Ganga basin, an area of 8,60,000 sq km spread across 11 states, is the world's most populous river basin"***

*Terrace farming in the Himalayas*

planet. It supports over 500 million people in five countries. Over 5,65,000 sq km are cultivated in this region in India, representing almost a third of the agricultural area in India. The Ganga basin, with its fertile soil, is the major contributor to the agricultural economies of India and Bangladesh. The Ganga and its tributaries have formed a large flat and fertile plain in North India extending over an area of 1,086,000 km (Jain et al., 2007). The fertile alluvial soil not only covers more than 52% of the basin, but also extends over a sizable portion of the peninsular foreland. The nutrient-rich alluvial formation has yielded annual harvests of crops for the past thousands of years with little significant deterioration. The river and its tributaries provide a perennial source of irrigation for cultivation of rice, wheat, sugarcane, lentils, oil seeds, and potatoes. The presence of swamps and lakes along the banks of the river provide a rich growing area for crops such as legumes, chilies, mustard, sesame, vegetables, and jute. The basin is one of the most extensively irrigated areas in the world. As of 2008, the net irrigated area in the states comprising the Ganga Basin was some 3,61,100 sq km, constituting over 57% of the net irrigated area of India as a whole. The basin also has a vast reservoir of groundwater, which is replenished every year. The groundwater usage for irrigation in the states in the Ganga basin exceeded 94.4 billion cubic meters per year as of 2008 and accounted for nearly 50% of the groundwater irrigated area of the entire country. Apart from irrigation, groundwater resources are also being heavily tapped for industrial and domestic uses covering both urban and rural areas.

Ganga carries the highest silt load for any river in the world and the deposition of this material in the delta region enriches the mangrove forests of the Gangetic delta. The Sundarban is the world's largest remaining contiguous, biodiversity-rich mangrove ecosystem featuring habitats for fish, shrimp, birds, and other wildlife, including the Royal Bengal Tiger. The forest also has immense protective and productive functions.

*Prize catch of Pomfret at the Kolkata fish market.*



*Boats on the marshes at Ganga Sagar*

# Pisciculture

Fisheries and aquaculture are major activities along the Ganges River, its tributaries, and distributaries, as well as in the delta region. The social and economic structure of the fisheries is strongly influenced by culture, faith, and tradition within the basin. Kolkata provides the biggest market for fish. Fishing occurs in the upland regions of both India and Nepal, wherever markets exist. The torrential nature of most rivers in the upland region makes fishing very difficult and has led to considerable ingenuity in the development of fishing methods. Major Carp species are the most commonly caught. However, they represent a relatively small contribution to the overall annual catch, ranging from 13% at Allahabad to 4% at Patna. Hilsa is the traditional component of the Bengal fisheries. During the mid-1990s, Hilsa contributed 1% at Patna and 0.6% at Allahabad. Fish consumption is a major source of protein in the diet in riparian areas in Bihar and Bengal where capture fisheries are a major source of livelihood.

# Navigation

Ganga was once an important navigational route. Even today, West Bengal uses the river to transport jute, tea, grain and other agricultural products. The Kolkata port, one of the major ports in India, located on the Hooghly, a distributary of the Ganga provided the artery that led to the heart of India and major riverine lading hubs such as Patna and Mirzapur. Even today, a river-based transport for people and goods is common in eastern parts of Uttar Pradesh, Bihar and West Bengal.

Pilgrimage to holy places, *tirtha-yatra*, is an ancient and continuing religious tradition. In recent times, pilgrimage and tourism have become an engine for economic development and play a large part in socio-economic changes. The important forms of tourism in the basin include religious, heritage, adventure, and eco-tourism. There are several towns, cities, and spots which are holy to Hindus, Buddhists, Jains, and Sikhs. Pilgrims

arrive at these towns to take a dip in the Ganga, which is believed to cleanse a person of sins and help attain salvation. Similarly, Buddhists from around the world come to visit places like Bodhgaya, Rajgir, Vaishali, Sarnath, Patna and Kushinagar. Jains and Sikhs visit Pawapuri and Patna Saheb, respectively. The rapids of the Ganga are also a popular river rafting area, attracting hundreds of adventure seekers in the summer months. Adventure tourism, such as riverside camping, white water rafting, and kayaking on the Ganga in the state of Uttarakhand, is fast becoming one of the most popular forms of tourism in the area.

Every river economy is sustained through boats. In India, evidence of maritime trade through rivers has been found in the Indus Valley seals. There is enough evidence to suggest that the river Ganga was the original highway into India. But with roads and railways coming up in the 19th century and with declining river flows in the 20th century, Ganga lost its pre-eminent position as the premier navigation channel into India.

Renell's Atlas, published in 1782, clearly indicates how well the river was navigated. In Mirzapur, we came across an old pillar at one of the ghats, indicating the tariffs charged for transport to different stations on the river. One often comes across paintings and lithographs of boats, budgerows, steamboats and steamers plying over the Ganga. In our interactions with boatmen and boat makers, most of them from the proud Nishad community, the ones who helped the Lord Rama, to cross the Ganga, the common refrain was that they considered the Ganga the absolute fulcrum of their survival. All they wanted was that the flow of the river be maintained, and scientific removal of sand be done instead of the current trend towards exploitative and indiscriminate sand mining rampant on the riverbanks. In fact, the irony is that today the biggest function of boats is to ferry loads of sand picked up during mining. Otherwise, boats help in river crossings and usually do not undertake the long voyages between cities, now well connected by surface and air transport. In pre-industrial revolution times, the trip from Calcutta to Allahabad took a leisurely four months. With the arrival of steamers, the time was cut to four weeks. One had to wait for weeks for the flow to become adequate further upstream to embark on the journey. Boatmaking, navigation, and fishing are still a flourishing economic activity along the Ganga.

## Riparian Grasses

Saccharum grasses are to be found in many stretches along the Ganga banks. They are a fast growing biomasss harvested for making ropes, brooms, roof thatch, baskets and occasionally medicines. Their potential has still to be fully exploited.

*Rafting in the Ganga at Rishikesh*

# Trees, Grasses & Plants

## *Roots of Sustenance*

*Kans Grass on the banks of Ganga at Rishikesh*

The plants that grow along the banks of Ganga and her tributaries play an important role in the diverse ecosystems the river supports. Not only do the plants rely on the Ganga for water, but they also play an important role in nutrient and water conservation, and their presence controls soil erosion along the banks. The entire upper plains of the Gangetic basin, including the area between the Ganga and Yamuna rivers, used to be covered with tropical moist deciduous forest made up of Sal and other species. Unfortunately, most of this forest has now been removed and heavily cultivated. These thick Sal forests can still be seen further upstream, such as in the area surrounding Rishikesh. As one moves further north towards the source of Ganga at Gaumukh Glacier, the ecosystem consists of Chir Pine, Deodar, Fir, Spruce, Oak, Juniper, and Rhododendron. In the lower plains of the Gangetic basin, Oriental Silk Cotton Tree(*Bombax ceiba*), White *Siris* (*Albizia procera*), *Duabanga grandiflora*, and *Sterculia villosa* exist, among many others.

The Sundarbans is the largest estuarine forest in the world, covering 9,630 km and consisting of fifty-four islands divided by innumerable criss-crossing tributaries of the Ganga. This rich forest-swampland is covered by mangrove forests and mud flats, as well as *Genwa, Dhundal, Passur, Garjan, Kankra* and *Goran* trees, as well as other species of plants.

The entire stretch of Ganga is rich in flora and fauna, and her sensitive ecosystem must be protected. Hundreds of millions of humans and even more plants and animals depend on her waters for life.

Several organisations are coming forward to ensure regreening of the landscapes along the Ganga.

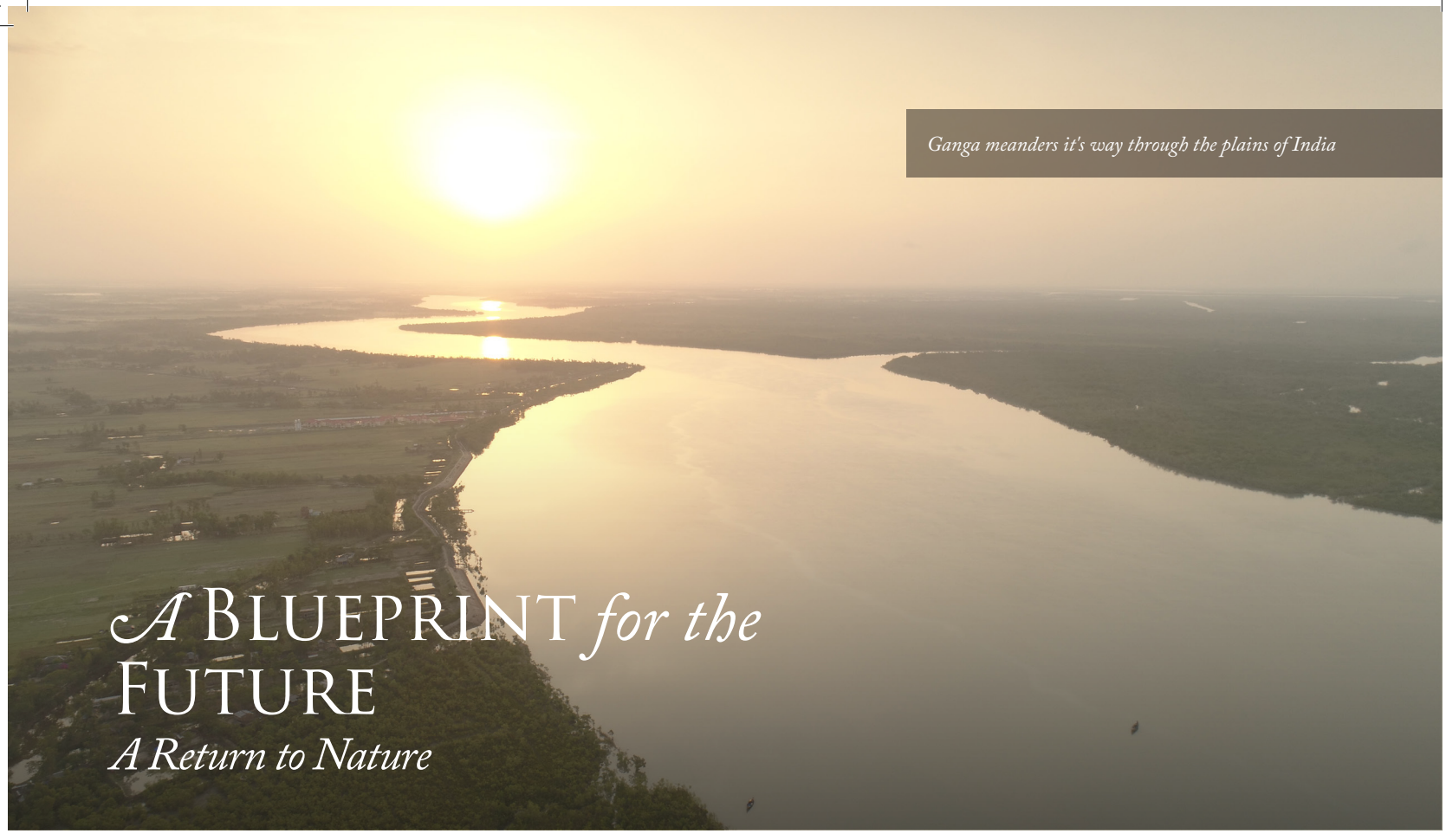
*"A survey of the vegetation composition of the Ganga River indicates that out of the 298 plant species recorded, most of the plants along the river are herbs"*

Plantation of Birch or the *Bhojpatra*, enroute Gaumukh, extensive plantation of Rudraksha Trees in the Ganga Basin and the concept of planting saplings of *Panchkol*, the five tree varieties including Peepal, Pakkad, Banyan, Bel, and Babul, is also being promoted to ensure increase in green cover.

A survey of the vegetation composition of the Ganga River bank indicates that out of the 298 plant species recorded, most of the plants along the river are herbs. The stretches where diversity and richness are found extremely low, like Shamshadabad and Kachchla are highly impacted by riverbed agriculture. Banaras also shows low diversity because of ecological disturbances. Other stretches, which show high diversity like Dharasu, Chilla, Baghi Village and Sahibganj, are comparatively less disturbed sites. However, it is observed that some sites with high diversity like Kahalgaon, Jiaganj, Ballia, Kanpur, Haldia and Allahabad are also sites with high disturbances. These disturbed sites also have a high percentage of exotic species out of the total plants recorded. The disturbances in the sites have possibly promoted the growth of invasive and more tolerant species replacing the native ones. This is supported by the results of density and frequency, which indicate that throughout the river stretch the most densely and frequently occurring plant species like *Saccharum spontaneum, Eichhornia crassipes, Parthenium hysterophorus, Alternanthera philoxeroides, Sida acuta, Urena lobata* and *Typha angusta* are exotic as well as invasive weeds. These plant species are dominant in the areas which are disturbed. Of these, the Saccharum grass has become a plant that has been put to several uses in handicrafts and utility items.

It is imperative to identify indigenous grasses and plants that grew along the banks in different regions, that helped check erosion and provided habitats for species. Floral communities along the riparian land of the river are important as they indicate the health of the river system in a particular area. Further studies need to be carried out for calculating the riparian vegetation index and estimating the health of riparian habitat along the river. Planning for restoring degraded habitats must be done based on the health of the riparian vegetation.

*Himalayan millets are red.*



*Ganga meanders it's way through the plains of India*

# *A* Blueprint *for the* Future

## *A Return to Nature*

The Ganga River forms one of the largest and most diverse river systems of the world. The varied geomorphological features along the Ganga River, coupled with climatic variations, results in a continuous gradient of habitats for various life forms, right from the headwaters to the mouth. This continuous yet varied gradient of habitats and life forms, results from differential availability of resources, which have been critical in shaping the local economy along the river. The Ganga River basin also hosts a dense population of diverse stakeholders having varied resource uses, linked culturally, religiously, socially and economically to each other and the river. The differential resource use by different stakeholders has resulted in varied impacts and threats along the length of the Ganga River. Therefore, for successful ecological restoration of the river, identification of site-specific threats and ways of minimizing or eliminating them is a prerequisite.

The stretch of the river located amidst the Himalayan mountain range is highly sensitive and ecologically fragile. The stretch is rich in biodiversity value, hosting habitats for endangered species such as the Snow Trout and the Golden Mahaseer in the waters. The human population density is low compared with the middle and lower stretches. This middle stretch is characterized by large, fertile floodplains that are extensively used for agriculture. The original vegetation has been replaced by crops. The human density is quite high, and this stretch hosts a significant population of the Gangetic River Dolphin, Gharial, Mugger, Turtles, and island-nesting birds. The floodplains and the natural vegetation of the lower stretch of the river have also been extensively replaced by croplands. This is the most

*"Ganga is a living entity, an organism, that humanity has exploited for eons to serve its own narrow interests"*

*Building boats by the Ganga near Prayagraj*

densely populated of the three stretches. Representative animal species of this stretch include the Gangetic River Dolphin, Otters, Saltwater Crocodile and Turtles, particularly *Batagur baska*.

It is evident that the ecological integrity of the Ganga River is threatened throughout its course. Each stretch has its unique set of ecological assemblages and threats. The upper stretch of the river is threatened by structural changes in its morphology due to altered flow regime and climate change. Bank alteration, unsustainable resource extraction and changes in water quality are dominant threats in the middle and lower stretches of the river. Thus, it can be deduced that alteration of the structural morphology of the river is the key threat, leading to habitat degradation and biodiversity loss. These existing threats are further heightened by the impacts of climate change and altered water quality, putting a question mark on the survival of aquatic species. To maintain the ecological integrity of the river, it is crucial to address the stretch-specific threats, keeping in view the current global river conservation situation. In the upper stretch of the Ganga River, the focus should be on maintaining the natural structural features of the river, and micro-hydel power projects that also allow the run of the river, should be considered instead of larger dams.

In the middle and lower stretches of the river, restoration of the hydrology regime through maintenance of environental flows to a near-natural condition would be the key to bringing about a restoration of the river ecosystem. This flow restoration would, in turn, enhance the suitability of the habitat for the aquatic biota, improve the flow regime and retain enough water in the Ganga River to dilute the heavy pollution load. The restoration of flow in the anaemic river is equally important as pollution abatement and perhaps more so. The thousands of hydraulic interventions by way of dams, barrages, anicuts and weirs have diverted the surface flow away from the river. Additionally, our flood irrigation methods based on humongous groundwater extraction have lowered the water table depleting the lean season base flow. The remedy lies in efficient irrigation through technology as well as agronomic practices. Restrictive anthropological access and interventions in the higher reaches can give the beleaguered glaciers a much needed respite.

Ganga is a living entity, an organism, that humanity has exploited for eons to serve its own narrow

interests. It is time all of us to realise our folly and begin to give back to mother Ganga. Our ancient texts show us the way. Each one of us must turn into Bhagirath, work tirelessly, towards bringing back the ecological balance to this land, end the scourge of pollution, and begin to treat the river with the respect a mother and a deity deserves.

Local wisdom shows the way, as the timeless song, the Sohar sung across the middle stretch of the Ganga, as a song of blessing at the time of child-birth, tells us:

*In the midst of the Ganga, a woman stands praying.*

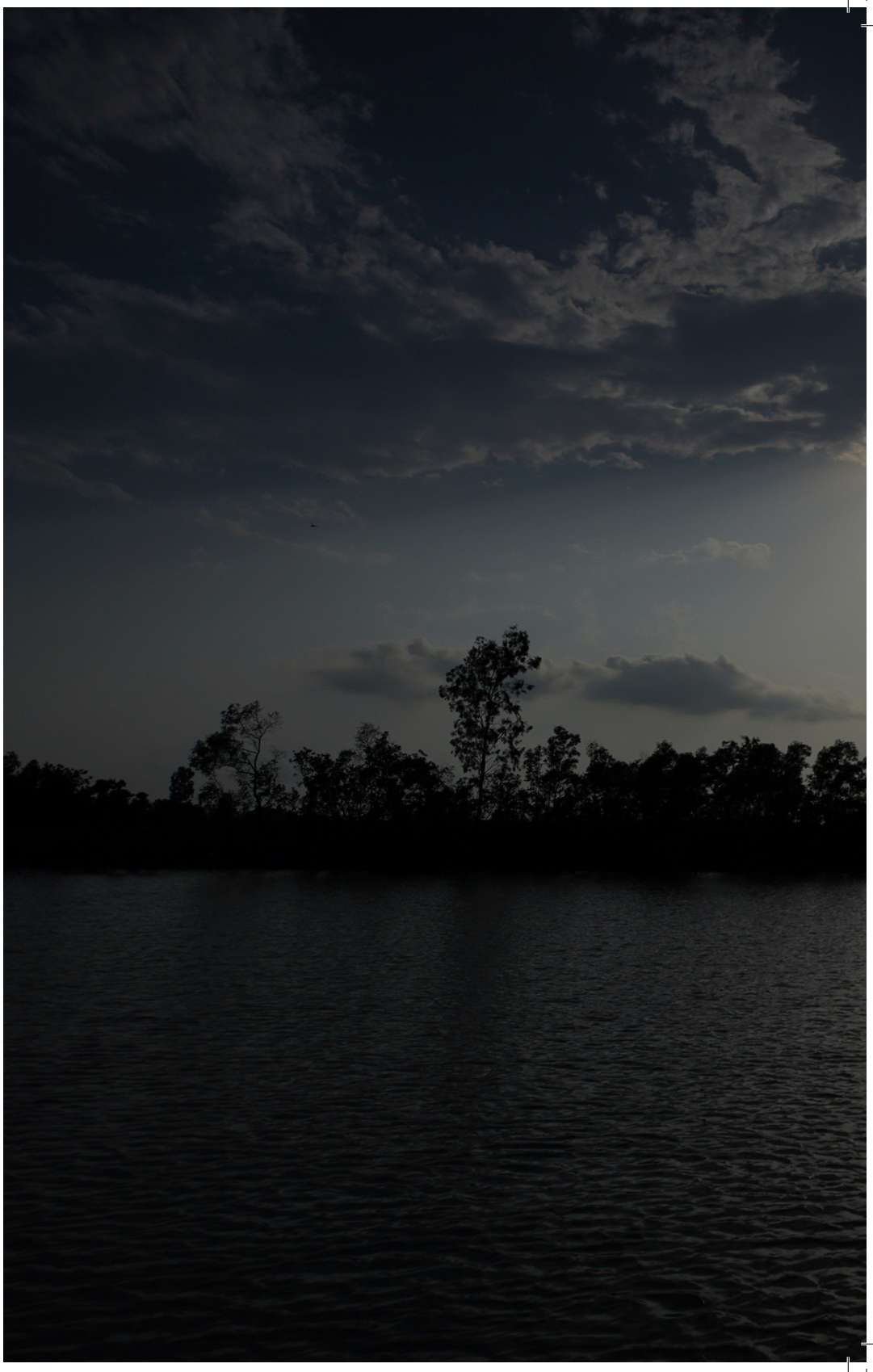
*O Ganga! Create a giant wave so that I may drown in it.*

*Are you unhappy with your in-laws? Is your parents' home too far away? Is your beloved in an alien land? What ails, you old woman, that you want to drown yourself?*

*No, I'm not unhappy with my in-laws and my parents' home is not too far away, neither is my beloved in an alien country. O Ganga, what ails me is a barren womb!*

*Go home, woman. I shall not drown you in a wave, but in exactly nine months, you will have a son, and your ears will hear a Sohar.*

*O Ganga? When a son is born, I will offer you a rich and beautiful garment. Give me a son like Bhagirath, so that the world sings his praises forever.*



*A serene night in the Ganga-Brahmaputra Delta*

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# Glossary of Terms Used

**A**

Acharya - Acarya: *One who teaches by example. Usually refers to a prominent or exemplary spiritual leader*

Advaita - Adwaita: *Non-dual. Refers to the impersonal-istic philosophy which unqualifying-ly equates God, the soul and matter*

Ahimsa Ahinsa: *Not killing. Non-violence; respect for life*

Arjuna: *One of the central characters of the Mahabharata. He is the warrior for whom Krishna is charioteer in the Bhagavad Gita*

Artha: *Economic development. The second aim of life*

Arti - Arati: *Welcoming ceremony in which auspicious articles such as incense and lamps are offered to the deity or to saintly people*

Ashram - Ashram: *A place set up for spiritual development*

Ashrama - Asrama: *A stage of life (of which there are four) adopted according to material considerations, but ultimately to spiritual realization*

Atharva Veda: *The fourth of the Vedas*

Atman - Atma: *Self. Can refer to body, mind, or soul, depending on context. Ultimately, it refers to the real self, the soul*

Aum - Om: *The sacred symbol and sound representing the ultimate; the most scared of Hindu words*

Avatar - Avatara - Avtara: *One who descends. Refers to the descent of a deity, most commonly, Vishnu. Sometimes it is translated as incarnation which, although inaccurate, may be the best English word available*

Aviralta - Aviralta: *Continuous flow*

**B**

Bhagavad Gita: *The Song of the Lord. Spoken by Krishna, this is the most important scripture for most Hindus. Tradition dates it back to 3000 BCE, though most scholars attribute it to the first millennium BCE*

Bhajan - Bhajana: *Devotional hymn or song*

Bhakti: *Devotion; love. Devotional form of Hinduism*

Bhakti-yoga: *The path of loving devotion, aimed at developing pure love of God*

Brahma: *A Hindu deity, considered one of the Trimurti, and in charge of creative power; not be to be confused with Brahman or Brahmin*

Brahmachari - Brahmacari - Brahmacharin: *One in the first stage of life, a celibate student of Vedic knowledge*

Brahmacharya - Brahmacarya - Brahma ch(c)ari: *The first ashrama or stage of life*

Brahman: *The ultimate reality, or the all-pervading reality; that from which everything comes, in which it rests and into which it will eventually go*

Brahmin - Brahman - Brahmana: *The first of the four varnas, the principal social groupings from which priests are drawn. Some writers, rather confusingly, use the spelling Brahman and the meaning only becomes clear in context*

**C**

Chela: *Disciple of a guru*

**D**

Darshan Shastras: *Six systems of Hindu Philosophy - Nyaya, Vaisheshika, Sankhya, Yoga, Vedanta and Meemansa*

Dassehra - Dussehra - Dassera - Dashara (and others): *Ten days. Also called Vijay Dashami. Celebrates the victory of Rama on the tenth day of the bright half of the lunar month of Jyeshtha. As is often the case with Hindu festivals, followers may interpret the festival differently, e.g. in connection with Durga*

Dharma: *Religion or religious duty is the usual translation into English, but literally it means the intrinsic quality of the self or that which sustains one's existence*

Dhoti: *A garment made of natural fiber (usually cotton or silk), worn by males, which covers the lower body and legs*

Dhyana: *Meditation*

Diva - Dipa - Light: *Usually a small lamp using ghee*

Divali - Diwali - Dipavali - Deepavali: *The festival of lights at the end of one year and the beginning of the new year, according to one Hindu calendar*

Durga: *Female deity. A form of the goddess Parvati; wife of Shiva*

Dvaita - Dwaita: *Dual. Refers to the personalistic philosophy that differentiates between God, the soul and matter*

Dwarka - Dvarka - Dvaraka - Dwaraka: *Pilgrimage site on the west coast of India*

**G**

Ganesha - Ganesh - Ganupati - Ganapati: *A Hindu deity portrayed with an elephant's head - a sign of strength. The deity who removes obstacles*

Ganga - The Ganges: *Most famous of all sacred rivers of India*

Gangadhara - Gangadhar *Shiva. The one who controls the river in his dreadlocks*

Gangotri: *The spot considered the source of the river Ganga*

Ghat - Ghaat: *Bank of a river, generally for human interaction with the waters*

Gotra: *A group with jati (caste) who force their members to marry outside the group*

Grihastha - Gristhi - Grhastha: *The second stage of Hindu life; one who belongs to that stage, that is, the householder (grihast)*

Guna: *Rope; quality. Specifically refers to the three qualities of sattva (goodness), rajas (passion) and tamas (ignorance), which permeates and control matter*

Guru: *Spiritual teacher, preceptor, or enlightener*

**H**

Hanuman: *The monkey warrior who faithfully served Rama and Sita. Also called Pavansuta (son of the wind God)*

Hari-Hara : *Dichotomy of worshipping Vishnu and Shiva*

Havan: *The basis of many Hindu rituals used at weddings and on other ceremonial occasions; the ceremony or act of worship in which offerings of ghee and grains are made into fire*

Havan kund: *The container, usually square or pyramid-shaped, in which the havan fire is burned*

*Hitopadesh: Stories with a moral*

Holi: *The festival of colours, celebrated in Spring*

Homa: *Term often used interchangeably with havan*

**J**

Janeu - Jenoi: *Sacred thread worn by Hindus who study under a guru*

Janmashtami - Janmashtmi: *The birthday of Krishna, celebrated on the eighth day of the waning moon in the month of Bhadra*

Japa - Jap: *The quiet or silent repetition of a mantra as a meditative process*

Jati: *Caste is the usual translation meaning occupational kinship group*

Jhanavi - Jaanavi: *Daughter of King Jahanu. Name given to Ganga*

Jnana - Gyan: *Knowledge*

Jnana-yoga - Gyan-yoga: *The path of knowledge, that aims at liberation*

**K**

Kali - Kaali: *Name given to that power of God which delivers justice - often represented by the Goddess Kali (a form of Durga)*

Kaala-Akala - Kaal-Akaal: *Limited time of human life in comparison to infinite natural cycles*

Kali yuga: *The fourth of the ages; the iron age or the age of quarreling and hypocrisy*

Kama: *The third of the four aims of life – regulated sense of enjoyment*

Karma: *Action. Used of work to refer to the law of cause and effect*

Karma-yoga: *The path of self-realization through dedicating the fruits of one's work to God*

Kirtan: *Songs of praise; corporate devotional singing, usually accompanied by musical instruments*

Krishna: *Usually considered an avatar of Vishnu. One of the most popular of all Hindu deities in contemporary Britain. His teachings are found in the Bhagavad Gita*

Kshatriya Khatri: *Second of the four varnas of traditional Hindu society, the ruling or warrior class*

**L**

Lakshmi: *The goddess of fortune*

**M**

Mahabharata: *The Hindu epic that relates the story of the five Pandava princes. It includes the Bhagavad Gita*

Makara - Makar: *Ganga's vehicle. Half mammal, half aquatic creature, the evolving image is a combination of all animal life that depends on the river as habitat*

Mala - Maala: *Circle of stringed beads of wood or wool used in meditation*

Mandala - Mandal: *A circle, area, or community/group*

Mandir: *Temple or shrine*

Mantra: *That which delivers the mind. Refers to a short sacred text or prayer, often recited repetitiously*

Manusmriti: *The laws of Manu. An ancient and important text on Dharma, including personal and social laws*

Marg: *Path. (See Jnana Yoga, Karma Yoga and Bhakti Yoga)*

Mata: *Mother. Often associated with Hindu goddesses who represent Shakti, power*

Mathura: *Holy place associated with Krishna*

Maya: *Not this. Usually, it refers to illusion, partially where the permanent soul identifies itself with temporary matter. For example, the body, etc. It can also mean power*

Moksha - Moksa: *Ultimate liberation from the process of transmigration, the continuous cycle of birth and death*

Mundan: *The head tonsuring ceremony. Performed in the first or third year of life*

Murti - Moorti: *Form. The image or deity used as a focus of worship. Idol is a somewhat incomplete description*

**N**

Navarati - Navarata: *The Nine Nights Festival preceding Dassehra and held in honour of the goddess Durga*

Nirvana: *The cessation of material existence*

**P**

Panchatantra: *Part of the supplementary Vedic scriptures, composed of animal stories with a moral*

Parvati: *The consort of Shiva, also known by other names such as Durga, Devi, etc*

Pranayam - Pranayama: *Regulation of breath as a means of controlling the mind*

Prashad - Prasad - Prasada - Prashada: *Sacred or sanctified food*

Pratyaksh - pratyaksha: *Being in the presence of*

Pravachan: *A lecture or talk, usually based on the scriptures*

Puja - Pooja: *Worship. General term referring to a variety of practices in the home or Mandir*

Purana: *Ancient. Part of the Smriti scriptures. Contains many of the well-known Hindu stories*

**R**

Raja Yoga - Raj Yoga: *Path of self-control and meditation to realize God*

Rajas: *Passion or creative potency, one of the three gunas (qualities of material nature)*

Raksha Bandhan: *The festival when woman tie a decorative bracelet on their brothers' wrists*

Rama: *The incarnation of the Lord, and hero of the Ramayana. (Avoid using the variant 'Ram' for obvious reasons*

Ramayana - Ramayan: *The Hindu epic that relates the story of Rama and Sita. Composed by the sage Valmiki thousands of years ago*

Ramnavami - Ramnavmi: *The birthday festival of Rama*

Rasa - Ras: *Nectar, essence, or taste*

Rig Veda Rg - Rc Veda: *The first scripture of Hinduism, containing spiritual and scientific knowledge*

Rishi - Rsi - risi: *A spiritually wise person. More specifically, one of the seven seers who received the divine wisdom*

**S**

Sadhana - Sadhan: *One's regulated spiritual practices or discipline*

Sadhu - Saddhu: *Holy man, ascetic*

Samagrata - Samagrata: *Completeness. Wholeness*

Sama Veda: *The Veda of chanting; material mainly from the Rig Veda, arranged for ritual chanting in worship*

Samsara - Sansara: *The world - the place where transmigration (the soul's passage through a series of lives in different species) occurs*

Samskar - Sanskar - Samskara: Sacraments designed to initiate a *new stage of life. There is usually a total of sixteen such rites of passage (though many schools of thought do not practice them all)*

Sanatan Dharma: *The eternal or imperishable religion; also known as Vedic Dharma. Adherents often prefer this term to Hinduism since it characterizes their belief in the revealed and universal nature of religion*

Sankranti - Sankrant: *The first day of transit of sun into Capricorn. Usually celebrated as a day of sun worship*

Sannyasa: *The state of renunciation, the fourth stage of life*

Sannyasin - Samyasin - Samnyasin: *A renunciate who, having given up worldly affairs and attachments, has entered the fourth stage of life, often as a mendicant*

Sanskrit: *Sacred language of the Hindu scriptures*

Sanskara - Samskara: *Rites of passage. Also alternatively used for values imbibed from family and kin*

Saraswati: *The power of knowledge, often represented by the goddess Saraswati, the goddess of learning*

Sattva - Sattwa: *Goodness, or the potency to sustain and nourish; one of the three gunas*

Seva - Sewa: *Service, either to the divine or to humanity*

Shaivism - Saivism: *The religion of Hindus who are devotees of Shiva*

Shakti - Sakti: *Energy or power, especially of a Hindu feminine deity*

Sheshnag - Seshnaag: *The mythical naag or Cobra snake with multiple heads is the king of snakes. It is serpentine demigod, primordial being of creation, holding all planets on the hood*

Shiva - Siva (many variants): *A Hindu god. The name means kindly or auspicious*

Shivaratri - Sivaratri: *The annual festival celebrated in February/ March in honour of Shiva. Also called Mahashivaratri*

Shraddha - Sraddha: *Ceremony in which Sanctified food is offered to the poor and needy in memory of departed ancestors*

Shri - Sri: *Illustrious. Used as a title of respect, example Shri Krishna. Also, a respectable title for men. The feminine form is Shrimati*

Shruti - Srti: *That which is remembered. Applicable to Hindu scripture other than the Vedas*

Sita - Seeta: *The divine consort of Rama*

Smriti - Srti - Shruti: *That which is heard. A term specifically applied to the four Vedas, including the Upanishads. Some Hindus believe that Smriti is subservient to Shruti but others consider it to have equal importance*

Sutra - Sutta: *Short sayings or verses relating to various rituals or encapsulating profound philosophical meanings*

Swami - Svami: *Controller. Sometimes, more specifically, Goswami (one who can control his/ her senses). A honorific title applied to a religious teacher or holy person, particularly a sannyasin*

Swastika - Svastika: *From the Sanskrit for well-being; a mark of good fortune. The four arms signify the four directions (space), the four Vedas (knowledge) and the four stages (time) in the life cycle*

**T**

Tamas: *Ignorance or destructive potency; the lowest of the three gunas*

Trimurti: *The three deities. Refers to Brahma, Vishnu, and Shiva, who personify and control the three gunas. They represent and control the three functions of creation, preservation, and destruction. This is not the same as the idea of Trinity, which should not be used*

**U**

Upanayana: *Ceremony when the sacred thread is tied – to mark the start of learning with a guru*

Upanishad - Upanisad: *A sacred text based on the teaching of a guru to a disciple. The Upanishads explain the teachings of the Vedas*

**V**

Vaishnavism - Vaisnavism: *The religion of Hindus who are devotees of the god Vishnu*

Vaitarini - Vaitarini: *The river of life and death that must be forded, to transcend the cycle of life and death. Once one manages to cross it, one is free of the cycle*

Vaishya - Vaisya: *The third of the four varna of Hindu society, composed of merchants and farmers*

Vanaprastha: *The third stage of life, typified by retirement and asceticism*

Vanaprasthi - Vanaprastha: *Forest dweller. One who is in the third stage of life before complete renunciation*

Varanasi - Banares - Benares - Kashi - Kasi: *City of the river Ganges, sacred to Shiva. It is one of the holiest pilgrimage sites and an ancient center of learning*

Varna: *The four principal divisions of Hindu society. It is important to note that the word 'caste' refers strictly to sub-divisons within each varna, and not to the varnas themselves*

Varnashrama - Varnasrama: *Dharma The system whereby society is divided into four varnas (divisions), and life into four ashramas (stages)*

Varsha Pratipada: *The day of Creation, celebrated as New Year's Day by many Hindus*

Veda: *Knowledge. Specifically refers to the four Vedas, through any teaching which is consistent with the conclusions of these scriptures is also accepted as Vedic*

Vijay Dashmi - Vijaya Dashami: *Another name for Dussehra*

Vishnu - Visnu: *A Hindu god. With Brahma and Shiva forms the Trimurti*

Vrata - Vratam: *Vow. Often included abstention from certain foods*

**XYZ**

Yajur Veda: *One of the four Vedas, dealing with the knowledge of karma*

Yaksha - Yakshi: *Keepers of ambrosia. The spirit of life that infuses all creatures, usually depicted as human figures amidst nature in temple carvings*

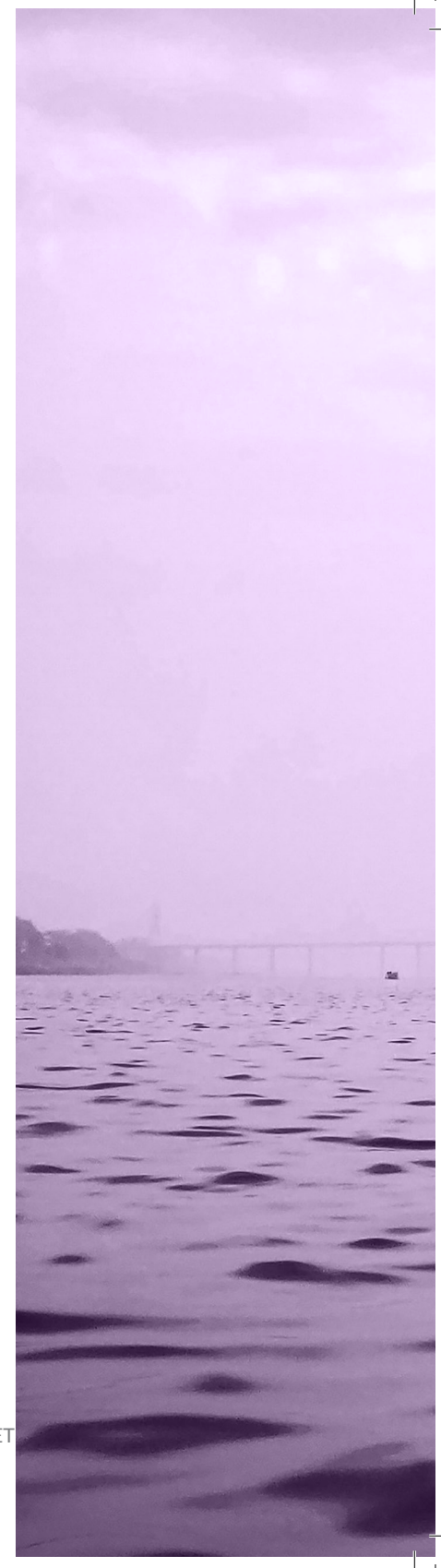
Yama - Yam: *The lord of death. The one who fetches to heaven in the last moments of human life*

Yamuna - Jamuna - Jumna: *The river that originates, like Ganga, in the Himalayas*

Yatra - Jatra: *Pilgrimage. Usually to the most important sacred place in India*

Yoga: *Communion/union of the soul with the Supreme, or a process which promotes that relationship. The English word 'yoke' is derived from yoga*

Yuga: *Age, or extended period, of which there are four*



# Ganga Stotra

*Composed by* **Adi Shankaracharya**,
*defining the Spiritual Cosmology of Ganga*
*(Sanskrit-English)*

***Devi Sureshwari bhagawati Gange,***
***Tribhuvan tarini taral tarange;***
***Sankarmauliviharini vimale,***
***Mam Matiraastaam tava padakamale.***

Heaven-born river! Bhagawati Ganga!
Goddess, redeemer of all worlds!
In ripples thy waters playfully are flowing;
Thou wanderest in Shiva's matted hair,
Grant that my mind, O thou art stainless!
Ever may dwell at the lotus of thy feet.

***Bhagirathi sukhdayini maatas,***
***Tavajalmahima nigame khyatah;***
***Naaham jaane tava mahimaanam,***
***Trahi kripamayi mamajnaanam.***

Bhagirathi! Mother! Giver of gladness!
The scriptures celebrate the glory of thy stream:
But I, alas! Know nothing of thy glories.
Foolish as I am, do thou redeem me,
Thou, the embodiment of merciful love!

***Haripadapadmatarangini gange,***
***Himavidhumuktaadhavaltarange;***
***Duurikuru mam dushkritbhaaram,***
***Kuru kripya bhavasagaraparam.***

Rippling, thou flowest from the feet of Hari,
Whither than frost or diamonds or the moon.
O Mother Ganga! Take away the burden,
of wicked deeds that weighs upon me;
Bear me across the ocean of the world.

***Tava jalamamalam yena nipitam,***
***Paramapadam khalu tena grihatam;***
***Maatargange tvayi yo bhaktah,***
***Kila tam drashtum nay amah saktah.***

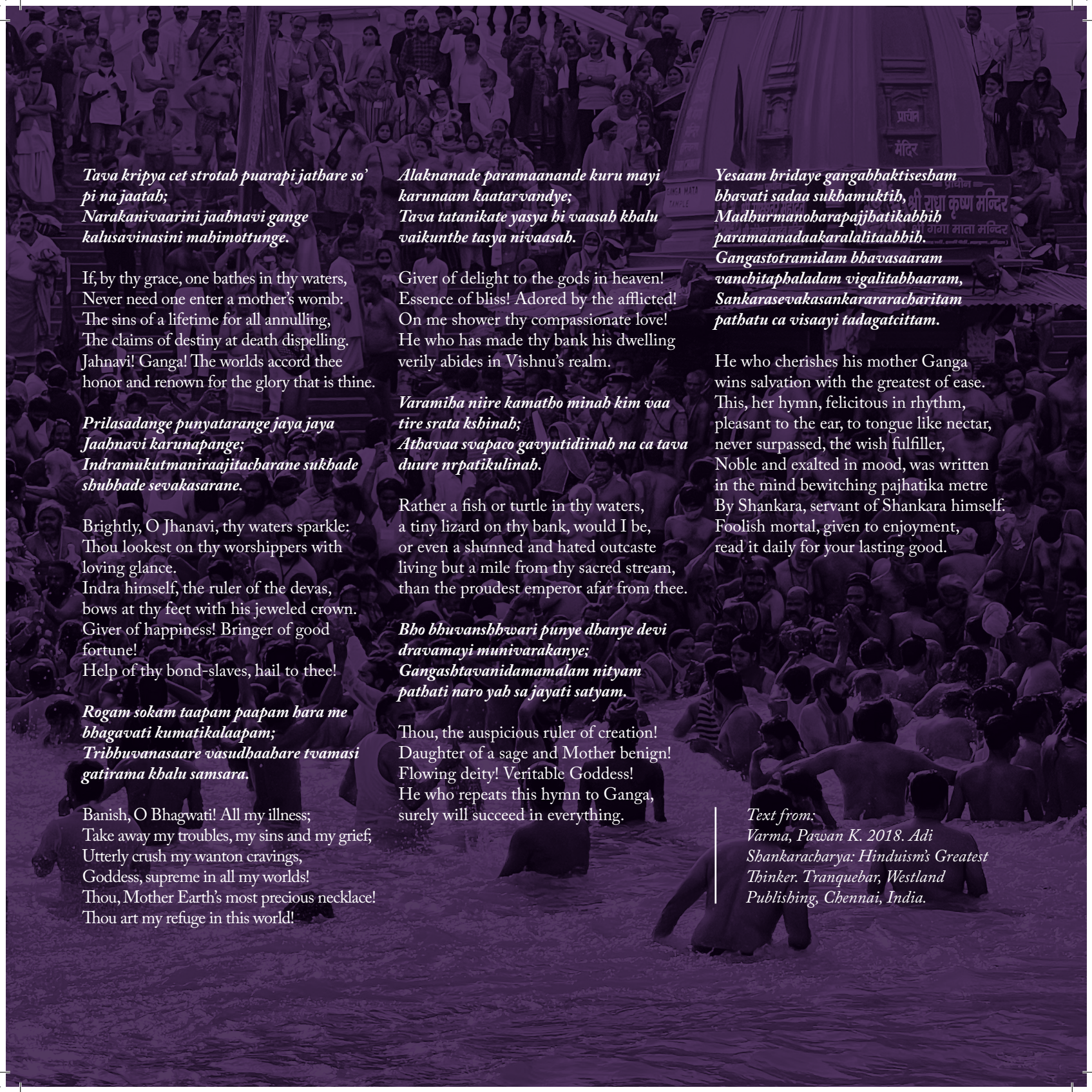
He who has drunk the refreshing waters
verily has tasted of the highest;
He, thy worshipper, O Mother Ganga!
Never will be seized by the king of death.

***Patitodhaarini Jahnavi Gange,***
***Khanditagirivaramanditabhange;***
***Bhishmajanani khalu munivarakanye,***
***Patitanivarini tribhuvandhanya.***

Ganga! Jhanavi! Saviour of Sinners!
Murmuring, thou flowest on thy broken stones.
Mother of Bhishma! Daughter of Jhanu!
Thou, the almighty conqueror of evil!
Truly thou art blest in all the worlds.

***Kalpalataamiva phaladain loke,***
***Pranamati yastavain na patati soke;***
***Paravarihaarini gange,***
***Suravantikaakrataralpange.***

Like the celestial tree of wishes,
Thou grantest the boons of men's desiring;
He who salutes you will not grieve again.
Thou sportest, O Ganga, with the limitless ocean;
Wondering the damsels of heaven regard thee,
watching with restless, sidelong glances.



***Tava kripya cet strotah puarapi jathare so' pi na jaatah;***
***Narakanivaarini jaahnavi gange kalusavinasini mahimottunge.***

If, by thy grace, one bathes in thy waters,
Never need one enter a mother's womb:
The sins of a lifetime for all annulling,
The claims of destiny at death dispelling.
Jahnavi! Ganga! The worlds accord thee
honor and renown for the glory that is thine.

***Prilasadange punyatarange jaya jaya Jaahnavi karunapange;***
***Indramukutmaniraajitacharane sukhade shubhade sevakasarane.***

Brightly, O Jhanavi, thy waters sparkle:
Thou lookest on thy worshippers with loving glance.
Indra himself, the ruler of the devas,
bows at thy feet with his jeweled crown.
Giver of happiness! Bringer of good fortune!
Help of thy bond-slaves, hail to thee!

***Rogam sokam taapam paapam hara me bhagavati kumatikalaapam;***
***Tribhuvanasaare vasudhaahare tvamasi gatirama khalu samsara.***

Banish, O Bhagwati! All my illness;
Take away my troubles, my sins and my grief;
Utterly crush my wanton cravings,
Goddess, supreme in all my worlds!
Thou, Mother Earth's most precious necklace!
Thou art my refuge in this world!

***Alaknanade paramaanande kuru mayi karunaam kaatarvandye;***
***Tava tatanikate yasya hi vaasah khalu vaikunthe tasya nivaasah.***

Giver of delight to the gods in heaven!
Essence of bliss! Adored by the afflicted!
On me shower thy compassionate love!
He who has made thy bank his dwelling
verily abides in Vishnu's realm.

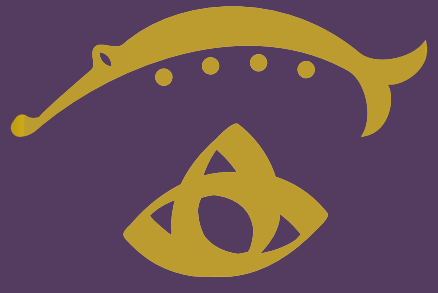
***Varamiha niire kamatho minah kim vaa tire srata kshinah;***
***Athavaa svapaco gavyutidiinah na ca tava duure nrpatikulinah.***

Rather a fish or turtle in thy waters,
a tiny lizard on thy bank, would I be,
or even a shunned and hated outcaste
living but a mile from thy sacred stream,
than the proudest emperor afar from thee.

***Bho bhuvanshhwari punye dhanye devi dravamayi munivarakanye;***
***Gangashtavanidamamalam nityam pathati naro yah sa jayati satyam.***

Thou, the auspicious ruler of creation!
Daughter of a sage and Mother benign!
Flowing deity! Veritable Goddess!
He who repeats this hymn to Ganga,
surely will succeed in everything.

***Yesaam hridaye gangabhaktisesham bhavati sadaa sukhamuktih,***
***Madhurmanoharapajjhatikabhih paramaanadaakaralalitaabhih.***
***Gangastotramidam bhavasaaram vanchitaphaladam vigalitabhaaram,***
***Sankarasevakasankararacharitam pathatu ca visaayi tadagatcittam.***

He who cherishes his mother Ganga
wins salvation with the greatest of ease.
This, her hymn, felicitous in rhythm,
pleasant to the ear, to tongue like nectar,
never surpassed, the wish fulfiller,
Noble and exalted in mood, was written
in the mind bewitching pajhatika metre
By Shankara, servant of Shankara himself.
Foolish mortal, given to enjoyment,
read it daily for your lasting good.

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