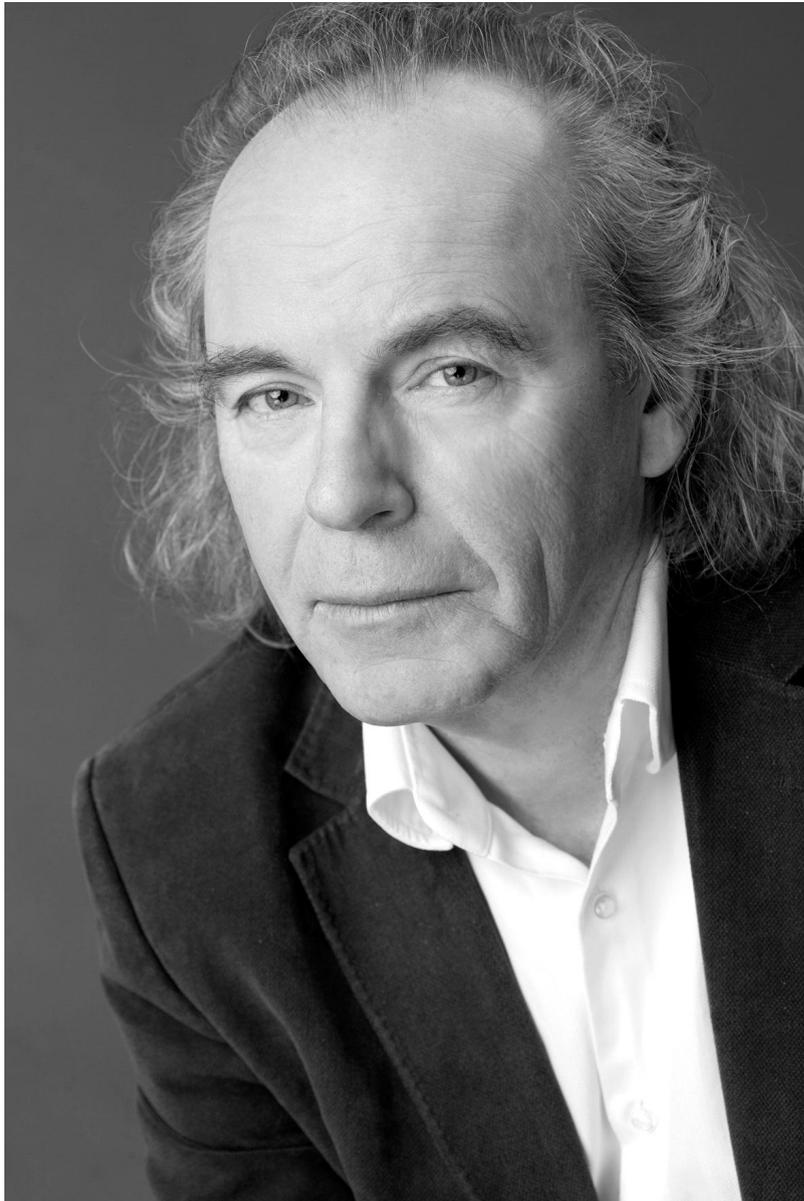


Terje Tvedt

Nilen

Historiens elv

TERJE TVEDT



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Terje Tvedt's new book is the most comprehensive book about the Nile ever written. Tvedt travels upstream along the longest river in the world, from the river's mouth to its sources. The result is a travelogue through 5000 years and 11 countries, from the Mediterranean to Central Africa. With insight and sensitivity, the writer shows and describes the river's wealth and poverty, its greatness and beauty, as well as its historical and political significance throughout the ages. The book is lavishly illustrated.

Terje Tvedt wrote and presented the award-winning documentaries *The History of Water* and *The Future of Water*, a comprehensive story of how humans' battles with water have shaped the past and will shape our future. They contain detailed accounts from a global journey to almost 40 countries on five continents. The series have been broadcasted on major TV-channels all over the world (see watervideo.com). Tvedt also edits a nine volume scholarly book series called "A History of Water" (New York/London: IB.Tauris/MacMillan).

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The Nile – the River of History

I feel that I have suffered the fate of a scroll whose rolls
have stuck together by disuse; my mind needs to be unrolled,
and whatever things have been stored away in there ought to be
examined from time to time, so that they may be ready
right when need requires.

(Seneca Letters 72.1)

Introduction

The Mosaic outside Rome

On the third floor of an unassuming archaeological museum about 35 kilometres outside Rome one can view the world-famous Nile mosaic. It is 2000 years old, almost six metres wide and more than four metres high – in colourful fashion and from a number of angles it depicts the river and life along it. At the top, African motifs are shown, and at its mouth Mediterranean scenes are recreated. The unusually bright-coloured and clear pattern is made up of painted stones fixed with a kind of mortar, but the original thing about the mosaic in Palestrina, that which makes it part of the history of art, is that the river and the life of the people living on its banks are rendered from a completely modern perspective – as if the artist was viewing the Nile from an aircraft. The work of art is also a tremendously eloquent historical source, underscoring the timelessness of the river as the main artery and centre of society. It also shows that the Mediterranean receives the history of a continent written in water.

The mosaic depicts the central position of the Nile in people's lives, but it also expresses how the river has been a part of Europe's cultural and religious history. It reminds us of a distant past when the Nile was worshipped as sacred, not only by priests in magnificent temples alongside the river in Egypt but also in Europe. The work of art dates from an era when the Nile or Isis cult spread from Egypt into the Hellenic and Roman world. The cult was a new, independent religion – a mystery religion that had to do with death and resurrection, and that revolved around impressive processions and rituals where the waters of the Nile played a pivotal role. At the British Museum in London stands one of the many statues of Isis, the goddess of fertility. In her left hand she holds a pitcher with holy Nile water, the very means of gaining salvation. Two thousand years ago, it was not unusual to see believers bearing such pitchers with Nile water over plains and up through long valleys north of the Mediterranean, and there is a profound historical connection between the pitchers of Nile water and the later baptismal fonts of European churches.¹

The work of art was laid out several hundred years before this Nile and Isis cult became a serious rival of Christianity, the new religion which had spread from the Middle East. The worship of the Nile and its gods continued well into the Christian era, and it was adherents of Isis who lynched St Mark the Evangelist when he died a martyr in Alexandria one Easter about ten years after Christ's death; he was dragged through the streets with a rope around his neck before being beheaded. It was not until Christianity became the state religion of the Roman Empire that the cult around Isis and the Nile was crushed. Rather than being the cradle of an expansive mystery religion, the Nile delta now became a centre for early Christianity.

The Nile mosaic outside Rome represents a long line in history, one that later divisions and boundaries drawn between continents and nations have blurred. The very name of the river is linked to Europe via the Greek poet Hesiod, who lived between 700 and 600 BC, when Egypt, the delta and Greece were part of a common Mediterranean culture. Hesiod called the river Neilos, since the numerical value of these letters in Greek is 365 – i.e. everything – in order to emphasise that the river was then conceived as being everything. The mosaic reminds us that mankind originally came from Africa, from where it emigrated and populated the globe, that some of the earliest agricultural societies we know developed along its banks, and that the most impressive and mighty of all the ancient civilisations was able to emerge because of the river. The mosaic is a topographical representation of a religious ceremony, but it can also be interpreted as a celebration of the Nile and part of Mediterranean culture, symbolised by the image of the Roman Caesar and the goddess-queen of Egypt Cleopatra together in a boat. The mosaic emanates the same fascination for the river that Caesar must have had, since it is said of him that he was prepared to give Egypt away immediately if only someone could tell him where the source of the river lay. Where did all this water come from that every summer – precisely when Egypt was at its hottest and driest – gushed out of the scorching heat of the desert and created one of the most fertile areas in the world? Right up until the European late Middle Ages, the enigma of the river was shrouded in fanciful mythical conceptions – in literature it was described as if it both flowed out of Paradise and over a staircase of golden stones. For a long time, the Nile was conceived as being the manifestation of the divine. One of the great chroniclers of the 14th century, Jean de Joinville, summed up the prevailing belief in his *Histoire de Saint Louis*,

published between 1305 and 1309: 'No one knows how all this water comes about, save by the will of God.' 2

After the triumph of the Enlightenment in Europe, a different and more scientifically based Nile romanticism came into being. During the 19th century, there were few geographical questions that were more discussed than where the source of the Nile lay. 150 years ago, the Nile waterway was the arena for one of the most fabled scientific mappings of the world when adventurers and explorers such as Henry Morton Stanley, David Livingstone, John Hanning Speke, the lesser known wealthy Dutch woman Alexandrine Tinné and a Norwegian long-distance king searched for the sources of the river. The history of how, from the beginning of the 19th century, the Nile was mapped by European geographers, explorers, hydrologists and British hydroplanners is one of colonial conquest and the triumphal progress of modern science through Africa.

But the river that the mosaic captured, frozen in a 2000-year-old glimpse, has ever since, every single second, day after day and generation after generation, quietly trickled through inaccessible primeval forests that the sun never penetrates, crashed with a mighty roar down volcanic mountains, butted its way out of gigantic inland seas, crossed the largest swamp in the world and wound its way further than any other river through one of the driest deserts on the planet, on its way out of the depths of Africa. The river's lasting geography and the pulsating rhythm of the water have continued to create conditions for societal development and change and made it the subject of myths and struggles for power.

When the mosaic was made, the Persians, Alexander the Great and Caesar with his troops had already subjugated the Nile delta – one of the most fertile areas in the world. Later, the Arabs conquered the Nile. The crusaders came here. Napoleon rode at the head of his army up the delta in order to fight 'The Battle of the Nile'. With Cairo as their axis, the British established their Nile empire from the Mediterranean to the sources of the Nile in the heart of Africa, and the entire Nile – for the first time in history – came under one power, that of London. Since the 7th century AD, the inhabitants of the waterway have been at the centre of the fight between Islam and Christianity in Africa, and the Nile waterway has also been the cradle of some of the most classic myths of the international aid system, while certain areas are at present undergoing a development that makes the images of a helpless Africa

promoted by the aid era hopelessly antiquated.

This book is part of the same tradition that the mosaic in Palestrina symbolises: the European fascination with the role and importance of the river. It is a historical book about the development of civilisation and a travel account from the longest river in the world. But it is also a study of modern hydropolitics and African development, and how these changes reflect – as in a prism – many of the key developmental features of the modern world. But first and foremost the book is a biography of a vital artery that links together almost a billion people in a common destiny that no one can escape.

I have previously written about the history of the Nile when the river was under British control (*The River Nile in the Age of the British*) and in the post-colonial era (*The River Nile in the Post-Colonial Age*). I have also published literary accounts of the area (in five volumes) and books about the aid era in the region. *The Nile. The River of History* has a different focus and a much longer time-perspective, and it seeks to sum up everything I have learnt after innumerable journeys criss-crossing the entire waterway, after endless discussions late in the evening over coffee tables from Alexandria to Kigali, after many and lengthy interviews with experts, heads of state and ministers, and after having spent years in archives in three continents in my search for sources about the region and the history of the river.

That which happens to and along the Nile now and in the years ahead will have dramatic consequences in the region and for world politics. As this book is being written, the river – both as it runs through nature and through human societies – is undergoing the most revolutionary change of all its long history. It is precisely when the present age is so dramatic, fluid and impossible to get an overall view of that historical knowledge becomes important, for misunderstanding the present is inevitable if one does not understand the past.

The account is organised as a journey up the Nile, from its mouth to its sources. For only by following the river upwards, from place to place, slowly and systematically like the pulse of the river through history, can its secrets and roles be revealed and its significance for the development of society understood.

The flow of history

On my way from Rome, after having crossed the Mediterranean, I look down at the miles of sandy shores – to the west endless expanses of brown desert, and beneath me a gigantic green garden. I am flying in over Egypt and the Nile delta, my forehead against the window as usual for minutes on end, and while I see the river like a lonely glistening streak of life, surrounded with green as a protest against the dominance of the desert, I notice how my northern European blindness to the significance of water once more loses its hold. I am here to give the opening contribution on the importance of the history of ideas of water at a historical conference in the Alexandria library. Although I have worked on this theme for a long time, I still feel the pressure – I, a man from Norway, am to talk about water and the Nile in the land of the Nile. Once more I leaf through a classic on the geological history of the Nile, for even though the Nile is culture and mythology, romanticism and nostalgia, Rushdi Said's book reminds one that basically the Nile is a physical structure, indeed, one cannot understand its role in society without quantifying its hydrology.³

On the first page of my notebook, which is lying on the seat table next to the computer, I write down large the most important figures concerning the Nile. I do so in almost ritual fashion, as if to emphasise to myself that under the thick layer of culture, religion and politics that have shaped the way everyone sees the Nile today there runs an actual river that has a quite definite geographical hydrological nature. For the figures I write down are figures that have a highly unusual societal significance, just as relevant at the time of the mosaic as they are today. The Nile such as we now know it, as an all-year river, is a result of relatively recent geological processes. It arose by two different already existing waterways linking together less than 15,000 years ago. The modern Nile is a child of this last wet phase in the history of the regional climate.

I spread out the map of the Nile that I always have with me when travelling here, and since I am a historian and political scientist who also happens to be a geographer, it is a reflex action – for the map makes connections clear that other political scientists are often less interested in. The Nile is over 6,800 kilometres long, and if one turns it with Cairo as its axis, it would run across the Mediterranean, through all of Europe, cross the length of Norway

and end up well north of Spitsbergen. It crosses 35 latitudes; its catchment area is about three million square kilometres, about one tenth of the entire African continent, or an area six times the size of France. Eleven states share the waterway, and roughly a thousand different peoples have for generations developed their various cultures and societies there. The Nile basin, because of its size and climatic variation, topography, flora, fauna and societal formations, is without comparison the most complex and varied of all major waterways with regard to both natural and societal conditions.

The major political importance of the waterway is framed by a merciless paradox: its extent is enormous, but it conveys very little water. The annual average has approximately been assessed at 84 billion cubic metres, measured at Aswan in Egypt. That is not very much, roughly 12 per cent of the Yangtze or Changjiang, 6 per cent of the Congo and about 1 per cent of what the Amazon carries with it to the sea on average every year. The reason for this is the most important distinctive feature of the Nile: long stretches of it run through an area that is completely devoid of precipitation. The average annual natural flow of water in Upper Egypt has been somewhere between 80 and 90 billion cubic metres. Over the past decades, this has decreased, not because of climatic changes but because more than 10 per cent of the water evaporates in the large artificial inland lakes in the Nubian desert. The Nile gets no additional supply of water during its almost 2,700-kilometre-long journey through one of the world's driest and hottest areas. No other river in the world runs as far through a desert without a supply of water from other rivers.

The river's long journey through the desert all year round is unique. Two completely dissimilar river systems with highly different hydrological profiles become linked together. The Nile has two major tributaries, the White Nile and the Blue Nile, which meet at Khartoum, the capital of Sudan. Here a remarkable hydrological process takes place that can also explain why the White Nile has been Egypt's most important river throughout history (until 1971). When there is a lot of water in the Blue Nile in the autumn, it functions as a dam for the much smaller White Nile. As the amount of water gradually decreases in the spring in this river, which comes from Ethiopia, the damned-up water from the White Nile runs down to Egypt, and it is this phenomenon that has made it at all possible to live and cultivate there, also during the summer.

The Blue Nile runs about 2,500 kilometres from its unassuming, sacred source on the Ethiopian high plateau before it reaches Khartoum. This river and the other tributaries that collect the rain in Ethiopia, such as Atbara (called Tekeze and Setit in Ethiopia and Eritrea) and Sobat (called Baro in Ethiopia), are responsible for almost 90 per cent of the Nile's total supply of water. In autumn, during the flooding season, the Blue Nile dominates completely. It alone is responsible for about 80 per cent of all the water flowing into Egypt. The seasonal variations of these rivers are dramatic. Atbara is almost completely dry in the summer, while the Blue Nile sends down during the three autumn months 90 per cent of all the water it conveys in the course of an entire year.

The White Nile is a completely different sort of river. From Khartoum to the southernmost parts of the swamp – a distance of approx. 1,800 kilometres – the river has a phenomenally insignificant incline of one metre per 24 kilometres, and the water supply varies much less from season to season. The entire stretch southwards to Malakal has no tributaries. From the east there then comes Sobat or Baro from Ethiopia, which assimilates a number of smaller tributaries. The river then turns sharply to the west and enters Lake No, a gigantic swamp lake. It lies lowest, or farthest north, in the world's largest swampland area.

The swamp landscape represents the most striking hydrological phenomenon of the White Nile: about 50 per cent of the water in Bahr al-Jabal, which is what the White Nile is called here, will never reach Khartoum or Egypt. Several tens of kilometres north of Juba, the capital of the new South Sudan, the swamps begin. Bahr al-Jabal (the mountain river – it comes from the mountains of central Africa) becomes a huge, sluggish lake covering the entire flat plain of South Sudan. It spreads out in all directions. Its extent varies considerably with the seasons and the Nile's water supply. Other major rivers in South Sudan, such as Bahr al-Arab and Bahr al-Ghazal (or the Gazelle river, because it runs through enormous park-like areas with large herds of gazelle), never reach the White Nile because they get end up in the swamp.

At Juba, the river still has 4,787 kilometres to travel before reaching the sea. 168 kilometres upstream it crosses the border between Sudan and Uganda at the Fola Falls after having run out of Lake Albert, through the swamp lake Kyoga, and pressed its way out of Lake Victoria at Jinja, not far from where Uganda's first power station, called 'the beginning of Uganda'

lies.

It is these lakes large of Central Africa that are the natural gigantic reservoir of the White Nile. The rain came to the equatorial lakes in present-day Uganda parallel with the receding of the ice after the last ice age. Extreme weather led to Lakes Victoria and Albert being overfull for a while with water from precipitation; this started to stream northwards and downwards, thereby forming the modern Nile. These masses of water, which ran unhindered over what was then a dry region but which today is a vast swamp, reached Egypt, and for a period of 500 years the river created constant, huge floods that finally formed the original Nile delta, with its many river courses.

For the past 10,000 years, Lake Victoria has on the whole behaved in a stable fashion and is now the world's second-largest inland lake. It causes considerable amounts of precipitation itself as a result of evaporation from its gigantic surface, and in addition gets water from rivers coming from Burundi, Rwanda, Tanzania, Uganda and in particular Kenya. The river is still described as the source of the Nile in both encyclopaedias and tourist guides, but the White Nile has many sources, both in the east, Kenya, the south, Burundi, and the west, Rwanda and Congo. The western mountains where some of the most important tributaries come from, belong to the wettest areas on earth, with precipitation 360 days a year and an average of five metres. The combination of these fortunate meteorological and geological conditions has made possible a continuous supply of water to the Nile, even in those periods of the year when the rivers from Ethiopia virtually dry up.

All these figures might seem out of place or accountant-like for those who feel that being preoccupied with the human should be limited to the human, i.e. that a live, historical narrative centred on humanity ought to ignore such figures, since they are scientific distractions. In actual fact, the opposite is the case: they sum up in quite crucial ways not only the frameworks that exist for the development of society but also describe a lasting axis and a centre in the existence of societies. It is these measurable geographical features that give the river its distinctive regional and local identity and that have enabled it along its banks to contribute to forming societies in various ways and to create various regional opportunities for utilising it. And it is simply not possible to understand the rise and fall of European colonialism, the key role of Ethiopia in the prelude to the Second World War, the

fate and position of South Sudan today or the history and future of Egypt without some knowledge of the hydrology of the Nile.

From the desert and Mediterranean through the delta

The Paradise of the Desert

If one wants to grasp the importance of the Nile for Egypt – the country furthest down the waterway that has always been the great power of the Nile – one has to understand what this desert land would have been without the river, in the same way as one only realises the value of water after learning that the well has run dry, or what light is after having seen darkness.

This biography of the Nile therefore starts with Fayyum, the classic oasis in the desert west of the river. It is so dry at certain places in the Sahara that archaeologists have found cigarette paper thrown away by allied soldiers during the desert war against Germany in the 1940s. Where the desert changes colour, from brown and patchy to white and clean, I open the car door and feel the heat hit me. I only need to walk a few minutes over the nearest sand dune, away from the asphalt road that winds its way through the brown, completely barren landscape, to be able to see nothing but desert and to be completely alone.

Absolutely alone. Here there is nothing. And perhaps the most striking thing – there is no smell of anything, for even though the endless waves of sand out to the horizon can remind one of the sea, it is a place without scents or smells. The feeling of emptiness is strengthened by the cooling, lonely manner in which the wind blows. It is difficult to get nearer the truth of Egypt's position.

After having sat down in the car again and thinking I can hear the engine go on strike because of the heat, an imaginative urban-dweller like myself can start to develop romantic fantasies inspired by desert journeys on film: the 4WD that stops when its engine breaks down, and the wind that slowly but surely covers it while one seeks shelter on its leeward side. The water bottles that get increasingly empty... That is when the signs pointing the way to Fayyum come into sight.

The place has been known as 'The Garden of Egypt' for thousands of years, also called 'The Paradise of the Desert'.⁴ It is a pulsating oasis – with beautiful mosques, old churches and ancient monuments. When one is at the centre of the 692 sqkm large depression and sees palms that all bend in the same direction, donkeys bearing loads of grain and fruit that look far too heavy, some water buffalo that contemplatively study those going past, and farmers, yes, everywhere farmers working on the small green patches of land, it is not easy to comprehend that it hardly ever rains here.

What makes this place so interesting for all those interested in the early history of mankind is that it was also a lush paradise in prehistoric times. The first permanent settlements in Egypt are estimated to be about 7000 years old, and they began here in Fayyum – a result of a migratory process with unusually far-reaching consequences. When the Sahara slowly turned into desert, the 'climate refugees' (as we would have called them today) made for permanent sources of water. So gradually they populated the areas eastward towards the valley of the Nile, eventually reaching the large all-year river that crossed the Sahara desert.

Fayyum quickly developed into one of the very first truly agricultural areas in world history. Its location is solely due to the fact that the Nile annually inundates the low desert hills that divide the river from the place. Originally, then, fertile Fayyum was the river's own work, a result of its nature. But the river demonstrated to mankind how nature's wonders functioned, or the gods' wonders, which for many people were one and the same thing, and the goal became to copy them, even if on a much smaller scale.

Almost 4000 years ago, during the reign of Amenemhet I in the 12th dynasty, the Egyptians hit on the brilliant idea of controlling the flooding, using the natural lake of Fayyum as a regulating reservoir.⁵ The inland lake, later described as a divine – or also natural – wonder by innumerable travellers, became nothing less than an early Nile dam, and probably one of

the very first installations of its kind in human history. The almost 4000-year-old regulatory dam in Egypt's central oasis was, in other words, a precursor of the tens of thousands of similar constructions that make modern society possible, that are the prerequisite for the fantastic growth of food production after 1900, and that are the prerequisite for millions of people gradually being able to settle and live in small areas that we call cities. Today, the dam has been enlarged into a huge inland lake that, in the middle of the desert, glitters with a lazy blue, although the water is too dead to have a really cooling effect. If one stands on the southern shore, it stretches almost as far as the eye can see; here the air is hazy, it shimmers on account of the heat, and far out on the horizon some dry ridges stick up like heads out of the lake, with a yellow-red desert colour against the almost white sky.

Handed-down myths relate that it was the Joseph of the bible who later enlarged the river bed the Nile had created when it was overflowing with flood water, where it breaks away from the Nile and out of the Nile valley itself to the west a little south of Fayyum. For that reason, it is referred to as Joseph's canal. The water system which the many date-growers, shop-owners, restaurants and mosques in Fayyum are completely dependent on is then a product both of nature and the human ability to copy and further develop what is natural. If one walks alongside the canals that wind their way through the desert, it is difficult to determine where the one ends and the other begins. Fayyum is thus a condensed, concentrated image of Egypt – extremely fertile and surrounded by desert on all sides, made up of a combination of the nature of the Nile and a man-made and man-controlled water system.

Fayyum is also Egypt's mirror image for another reason. While the oasis has constantly had an increasing amount of water led to it by the state, the scarcity of water and people's expressed dissatisfaction is increasing. The control of water in a desert climate is always a two-edged sword both ecologically and politically, because needs will increase all the time as society develops. It is indisputable that the more Egyptians have made themselves dependent on the utilisation of the water from the Nile, the more vulnerable they have become to natural and man-made changes in the river's water supply. In the long term, it is possible to describe this as the paradoxical hydraulic tight spot around which Egyptian history revolves.

Scarabs, reincarnation and the river of death and life

The desert between Fayyum and Alexandria – just sand and wind. Not a trace of life, except for a beetle, a scarab, that rolls a ball of moist earth up a small incline in the desert sand. Sometimes the ball grows too heavy and rolls down again. Then the beetle starts all over again, pushing it upwards, centimetre by centimetre. Usually, it is the male beetle that does the rolling. The female follows behind. It lays eggs where it can find moist clay or dung to pack them in. Then it rolls the ball to a safe place in the desert, buries it in the sand, and when it thus has ensured its descendants, dies content.

These desert images enjoyed sacred status in ancient Egypt. The scarab brought to life and concretised an ancient Egyptian idea of transformation, renewal and resurrection. In Egyptian mythology, Khepri, 'He who comes into being', is the name of the god who symbolised the ability of self-creation. He is normally shown pushing the sun across the sky each day, after having rolled it safely through the Egyptian underworld at night. Khepri is most often depicted as a scarab. In some grave paintings the god that symbolised the capacity for self-creation is depicted as a man with a human body and the head of a desert beetle.

The ancient Egyptians believed that the beetle, just like Khepri, came out of nothing. They believed that only male scarabs existed, and that the scarabs that crawled out of the balls of dung therefore quite literally came out of nothing. They symbolised both creative power and eternal life.

The scarabs and Khepri could help to explain the processes in nature that the Egyptians regularly witnessed: the resurrection of life from death, the renewal of the earth from dead brown to living green, the plants that emerged from the desert sand as if arising out of nothing. Every year, the Egyptian farmer and all of Egyptian society experienced such miracles. The delta was transformed from a place where nothing could grow to the most fertile area in the world. It was nature itself that brought about this. Given the knowledge of the time about the way nature functioned, there was no other possibility than to ascribe the wonders of the Nile to the power of the gods and, gradually, that of the pharaoh, or god-

king. It became natural for the Egyptians, since they observed it every year, to assume that death was merely the gateway to new life.⁶

The scarab that undisturbed rolled its ball, made of dung or a little moist mud, up the slight slope in the desert is nature's history teacher and the messenger of myths. It is a reminder – and an emblem – of the conception of death and life that dominated Egyptian thinking, one that also coloured and shaped people's ideas about the world for a much longer period than Christianity's and Islam's conceptions of death and life have dominated the conceptual world of Europe and the Middle East. The yearly miracles of the Nile are in many areas the basis of central religious conceptions in the desert religions that were later to arise in its proximity, and gradually influence the whole world. In addition to being the point of departure for the first myths, the beetle reminds us of the Nile as the producer of conceptions of eternal life and creator of the existence of societies.

Religious traditions in ancient Egypt, as in the major river civilisations of the Middle East and Asia at about the same time, arose quite literally among people who lived their lives on the banks of the great rivers. This naturally stimulated the development of an ingenious administrative system, where the need to assess taxes based on the size of the Nile's flooding accelerated the establishment of fixed units of measure and the development of mathematics. The Egyptians became pioneers in the development of astronomy because of the necessity to be able to forecast – not the weather, which was always the same, but when the floods would come. But the Nile was also central to people's cosmic universe. It was the teacher of nature and the great contexts, and it was the one who created the human experiences to which the gods were to speak if their message was to find fertile soil. The alluvial geography – the eternal ambiguity of the rivers as both life-givers and messengers of death as well as the cause of fertile irrigation and destructive floods and droughts – naturally shaped their conceptions of death and life.

The pyramid texts relate that the ancient Egyptians believed that to cross the Nile was like crossing the boundary or connecting line between two existences. Social life, earthly life, took place on the east bank of the river. By being immediately taken to the west bank after his death, the pharaoh could rise from the dead, and that is why the pyramids, which after all are enormous sepulchral monuments, lie precisely there. By crossing the river westwards,

then, resurrection was possible.

The belief that the Nile came from the underworld, where death reigned, is another illustration of how Egyptian cosmology reflected the ecological universe surrounding humanity. The world was made up of clear opposites: that between drought and flooding rivers, between desert and civilisation, between light and dark, between the one side of the river and the other side of it, between the earthly river and the heavenly and underworld river. The pyramid texts described how the river divided Egypt into two between the kingdoms of death and of life. The dead person went west, crossed the underworld and was reborn at dawn, crossed the sky above the Nile and ended in the west once more, in the eternal. The journey copied in the heavenly world what took place daily on the Nile. The sun rose, boats crossed the river and water alternated between surging and withdrawing, pressing forward and retreating.

At one and the same time, the Nile represented both the traditional boundary or barrier and the line of connection between two forms of existence. It was therefore also logical that such a river could only be navigated by a supernatural being. This was the mythical ferryman Mahaf, who transported the dead. He could travel in both directions, for he had two faces – one looked forwards, the other one backwards. In the Egyptian texts the river is both a barrier and a meeting place between people, between worlds and between life and death.⁷ Preoccupied by immortality as they were, the ancient Egyptians had an optimistic religion: This life was only the beginning of life after death, a passage so to speak to the next life – just as the dry season was a passage, an intermediate station between the fertility and activity of two Nile flood seasons.

It was only from the mid 19th century onwards that the Nile began to be subject to human will, that the river became increasingly less suitable as raw material for this type of religious myth. Now, with the construction of huge dams and barrages and enormous year-round canals full of water at considerable distances from the river, its development is the foundation of completely different types of world image, based on narratives on the triumph of modernism and the victory of humanity and technology over nature.

The rhythm of society and the river

One of the books I normally have with me when travelling along the Nile is *The Histories* written by the Greek Herodotus almost 2,500 years ago. The book, as great literature always does, constantly reveals new facets of itself, while its slow, slightly elaborate, yet controlled style and form suit the natural and social role of the Nile. Herodotus was a historian, frequently regarded as father of history as a discipline, but first and foremost he was a keen observer. He went to many places in the classical world, also along the Nile, and conversed with people he met and with priests; he listened and took notes, was a kind of inquiring romantic set on amassing knowledge for knowledge's own sake. He did not make do with things that were told him or that he considered to be second-hand truths; he wanted to find things out for himself. Herodotus' accounts of how simple it was for the Egyptians to cultivate the land because of the Nile's natural way of irrigating it captures both the essence and the distinctive feature of ancient Egypt under the pharaohs:

At present, [...] they obtain the fruits of the field with less trouble than any other people in the world, the rest of the Egyptians included, since they have no need to break up the ground with the plough, nor to use the hoe, nor to do any of the work which the rest of mankind find necessary if they are to get a crop; but the husbandman waits till the river has of its own accord spread itself over the fields and withdrawn again to its bed, and then sows his plot of ground, and after sowing turns his swine into it – the swine tread in the corn – after which he has only to await the harvest. The swine serve him also to thrash the grain, which is then carried to the garner.⁸

(<http://classics.mit.edu/Herodotus/history.2.ii.html>)

The Egyptians used reservoir or flood irrigation. They adapted to the natural and highly regular fluctuations of the river. In early June, the Nile was a small, unassuming river. The

countryside and plots of land lay baked by the sun and dried by the winds from the Sahara, mostly resembling a continuation of the desert. Then in autumn, each and every year, the Nile floods came. For a number of weeks each year the river could be 400 times wider than it was when at its most narrow. The villages lay like islands surrounded by a brown sea. After a while, the water receded, and in the meantime the river had deposited over 100 million tonnes of rich, fertile ooze where it flowed thick and brown towards the sea. All one needed to do was sow and wait for the crop to come, bigger and faster than anywhere else. The Egyptians, particularly those living in the delta or in Lower Egypt, did not need a strong state in order to develop an agriculture that was more efficient than that of other areas at the time. In Upper Egypt, they dammed up the flood water behind solid dikes. When the river was at its highest, the water was led into these reservoirs, which could cover areas of 40,000 decares (10,000 acres). They then released the water downstream when the earth was sufficiently irrigated.

The Nile's special hydrology and ecology made different demands on the organisation of society than other rivers did. In Egypt, the state did not need to mobilise tens of thousands and millions of peasants or slaves to build permanent embankments along the river, as did the Chinese state and the Chinese feudal lords – especially along The Yellow River.

Disastrous floods were more seldom. When the river threatened to rise above the level of nilometres that the population and the economy were adjusted to, comprehensive surveillance and safeguarding work was organised. A mark on an inner wall in Luxor shows an abnormally high flood level in the 22nd dynasty (943–746 BC) in Upper Egypt. The inscription reads: 'The entire valley was like a lake; there was no dam that could withstand its fury. The whole population was like sea-birds [...]'⁹ The Egyptians also carried out major water-regulating measures, but they were not of the same vital importance as along the Euphrates and Tigris, or along the large rivers in China. One of the first dams in the world was erected in Egypt c. 2600 BC – the Sadd al-Kefara dam at Wadi al-Garawi. It was a dam for controlling the Nile flood, but when it was destroyed not long after, this had no decisive impact on the country's development.

The danger of the salination of the soil, something that plagued and perhaps contributed to the decline of Sumer, did not represent the same problem in Egypt because of the role and reliable annual return of the floods. The river itself rinsed away the salt that the cultivation

of the land had added. The nature of the Nile contributed decisively to the farmers in Egypt having nothing to do for large parts of the year, which meant that they could more easily be mobilised for other types of public work, such as the building of the pyramids. For a long time, it was a widespread belief that it was Egyptian slaves who built the pyramids and all the other major buildings in the country. But recent research indicates with a high degree of probability that these theories are based on people having ignored the distinctive hydrology of the river and thereby its role in the organisation of agriculture. In Egypt, the situation was that for several months each and every year there was nothing for the farmers to do, because in summer there was normally not enough moisture in the soil for cultivation. While everyone was waiting for the next autumn flood, the population was 'free', and during this period people could be mobilised, either for payment or because they believed in the prevailing religion and the pharaoh's divine place in it.

The Egyptians also built canals, but to a much lesser extent than in China and Sumer. That they were capable of doing so they had, however, demonstrated; for they built long canals from the Nile all the way to the Red Sea during the time of the dynasties, and they also dug drainage channels in the delta. One of the earliest administrative titles given the local governor was *adjmer*, canal-digger, but this was after the central government had stated to assume responsibility for water control. The Nile was also relatively easy to navigate. The current took the boats northwards, while the wind on the whole blew southwards. By taking over control of boat transport, the state and the ruler could control the transportation of goods and people. It was more difficult to negotiate the violent Chinese rivers, particularly the Yellow River, as well as the Euphrates and Tigris.

As I reach the delta and pass the first small plots of land that border the desert, I take out Herodotus' book once more; I read his text again and, thanks to his descriptions, I feel I can imagine how the Egyptians for thousands of years have lived their lives in a never-ending attempt to adapt to the rhythm, gifts and dangers of the river.

The cities and rivers that disappeared

If one walks along the beaches in Alexandria, where the waves break on kilometre after kilometre of silver sand, and where the sun, with all the usual characteristics of a triumphant sunset in the eastern Mediterranean, sinks behind the fortress where the Pharos lighthouse once stood, it seems simply unnatural that Alexandria is a Nile city. The 40-km-long corniche, the famous waterfront promenade with its parallel road for traffic, insistently turns the face of the city towards the sea. In the same way that the development of the cityscapes, the architecture of the roads, the aesthetics of the sewage systems and the changed functions of the rubbish tips must be included in our understanding of the history of society if it is not to become anaemic and basically inhuman, the narrative of the Nile has to do with more than human ideas and plans. A living history that seeks to place active man at its centre must also deal with nature itself, ecological processes and technological adaptation, i.e. it must analyse structures which have always imposed different and changing frameworks on the active individual, but which have also – indeed, precisely – have been influenced by the active individual – whether it be the army leader, the modern engineer or the political entrepreneur.

One July day in 1961, an amateur diver was swimming alone in the polluted harbour basin just off the promenade in Alexandria. Suddenly, he found himself in an ancient world: he saw a flight of stairs lined by white marble columns, a life-size Roman statue, a gold coin, a sarcophagus, and not far from the fortress that for hundreds of years has guarded the city, two headless sphinxes, marble columns and a massive statue divided into two. Kamel Abul-Saadat, spear fisherman and amateur diver, had uncovered Egypt's sunken past.

Only a few stone's throws away from where the waves break against the Qayt Bay fortress, and with the modern library and promenade well within sight, you can now dive down into a still, submerged ancient world. Strange forms lie scattered over the sea bed. Alexandria's greatest treasures, including the ruins of Cleopatra's palace, lie six to eight metres below the surface of the Mediterranean. While you see a black face come into view and staring eyes meet yours through your diving goggles – it is a sphinx that has rested here, undisturbed, for thousands of years – you know that above you the sea goes on pounding indefatigably,

against the stone walls round the fortress and the jetty that protects the city.

So far, 25 ancient cities have been discovered on the sea bed off the Nile delta. These cities bear witness to many lives and many histories, but first and foremost what they demonstrate is that the Nile, as a river, has its own history, just as the people who live on its banks do. Thanks to Herodotus' book, we now know that when he lived there were three river courses from five to fifteen kilometres east of Alexandria, while today there is only one.¹⁰ And there were four secondary tributaries – Saitic, Mendesian, Bucolic and Bolbitine – of which only the two last-named were described as being partially artificial, created or influenced by human intervention. Herodotus' objective thoroughness also enables parts of the book still to speak directly to us today, while other parts of it most definitely belong to a 'foreign land', with a conceptual world far removed from that of modern rationality. His book contains descriptions of the Nile system that make it more relevant and topical than many of the articles that were in yesterday's newspaper. For when Herodotus describes how the river has altered in the delta, he speaks to The Modern Age, he is talking the language of rationality, even though it is obvious that the river he sees exists within a completely different conceptual universe. Herodotus shows us aspects of the Nile's role in human history and how the river has its own history. When he travelled around the delta region, the system had undergone major changes since the 8th century BC. Back then, that which was later to become the fertile Nile delta was a swamp landscape intersected by a river with indistinct banks and where large forests of papyrus provided hippopotamuses, crocodiles and birds wonderful places to hide and excellent living conditions. By about 3000 BC, the Mediterranean had risen by about 20 metres. In prehistoric times the delta was like a huge estuary with scattered islands. Over thousands of years, the Nile's deposits have formed land areas that split the estuary up into various branches. Science will hardly ever be able to determine accurately what took place during these thousands of years, but it seems clear that the rivers that crossed the delta changed course and that parts of the area gradually sank into the sea. Herodotus thus depicted around 400 BC not only cities in the Nile delta as if they were islands in the Adriatic, situated in the midst of a huge, swamplike area, adapted to the natural fluctuations of the river. He also described rivers and cities that disappeared around 1000 BC.

Underwater archaeologists have now reconstructed how one of the rivers that Herodotus

described, the Canopic, ran into the sea. At its mouth lay Herakleion, named after the classical divine hero Heracles, whom the Greeks (including the oracle at Delphi) already thought of as the successor of a much older Egyptian Hercules. The Greek historian Diodorus tells how Heracles managed to dam up a flood and force the river back to its usual course. The people then built a temple in his honour and named the place after him. Herakleion also had a number of temples in honour of the Nile god, and as a religious centre the city attracted pilgrims from the entire Mediterranean region. Old texts refer to it as a kind of gateway to Egypt. From the city one could sail up the Nile using the wind that blew from north to south, to Memphis or Thebes, and descend the river on the current.

Canopic was one of several riverways that disappeared, taking with it out of history cities that lay along its banks. Projects to regulate the river was implemented as early as the period of the pharaohs, and pyramid texts document that canals and channels were dug for transportation and drainage. It was annihilated not merely because of the river's own inexorable ecological logic but by the pharaohs having the Bilbitic deepened around 300 BC. Since this canal now acquired a greater capacity to convey water than before, there was less left for Canopic, something which led to its final demise. Herakleion is one of the submerged cities archaeologists have found, and it is described as intact, as if frozen in time.

Herodotus' more than 2000-year-old *The Histories* has, then, acquired renewed topicality. Because of his notes on the urban societies he observed, and his accounts of where they lay on riverways that no longer exist, archaeologists have something to go on, and people who believe and fear that parts of the present-day delta will sink into the sea have historical examples they can cite. Seen from a long Nile-ecological perspective, they now point towards a possible alarming future, one some people think will become a reality already in this century. The ancient past has definitively become present in a manner that usual and conventional ways of dividing the past from the present do not manage to capture – and the past is not quite simply a 'foreign land'.

Translation: John Irons