Horus’ Eye and Osiris’ Efflux: The Egyptian Civilisation of Inundation c. 3000-2000 BCE

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Preface

This book is the outcome of the project ‘An archaeology of the Pharaonic Nile and the rise of the Egyptian civilisation – Comparing religious water-worlds in history’ funded by the Norwegian Research Council (project number 171313). I am grateful that the research council believed in this project as a potential new approach for understanding the Egyptian civilisation. I would like to thank the staff at Unifob Global at the University of Bergen and in particular the water environment. Professor Terje Tvedt has been a source of inspiration for years and I have enjoyed and learnt a lot from the many long discussions we have had. I am grateful that I was part of his research group ‘Research group in Understanding the Role of Water in History and Development’ at the Centre for Advanced Study at the University of Oslo in 2008. Partaking in and cooperating with the Nile Basin Research Programme at the University of Bergen has also been of key importance, and I would in particular like to thank the current director Dr. Tore Sætersdal and the programme coordinators. In the domain of archaeology I would like to thank Professor Randi Håland for discussions and support throughout my academic career. I would also like to thank Professor Tim Insoll at the University of Manchester, where I had the opportunity to spend a short semester in 2007. The friendly staff at the British Library were also very helpful during the initial phases of this project. Finally, I would like to thank Francesca de Châtel for commenting upon my language. Obviously, I am solely responsible for any mistakes and the interpretations which I put forward about the Ancient Egyptian civilisation.
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Chapter 1: Introduction

‘The great civilizations of the world do not produce the great religions as a kind of cultural by-product; in a very real sense, the great religions are the foundations on which the great civilizations rest’ (Dawson 1957:128).

The Nile and the Egyptian Gods

The Great Pyramid of Khufu is the world’s largest pyramid and the last of the existing seven ancient wonders of the world. Together with the pyramids of Khafren and Menkaure at Giza, Djoser’s Step Pyramid in Saqqara, Sneferu’s Pyramid in Meidum and his Bent and Red pyramids in Dashur, it has intrigued and haunted the imagination. Over the last two centuries in particular, archaeologists and Egyptologists have been fascinated by the meaning of these ancient structures. The pyramids’ monumentality and splendid craftsmanship have inevitably triggered the recurring questions: why, and, to a lesser extent, how? In the history of archaeological thought, the question of why the pyramids were built must be one of the most common.

While this analysis does not pretend to provide a comprehensive answer as to why the pyramids were built, it does seek to address the question from a new and previously unexplored angle, namely by way of the river Nile (fig. 1). Indeed, there is one question of utmost importance in the history of ancient Egypt, which has hardly been raised or discussed: why was the Nile not identified with Egypt’s highest divinity? This question may initially seem secondary and irrelevant compared to the question of why the pyramids were built, but ‘in these deserts the river was life itself. Had it failed to flow, even for one season, then all Egypt perished. Not to know where the stream came from, not to have any sort of guarantee that it would continue – this was to live in a state of insecurity where only fatalism or superstition could reassure the mind’ (Moorehead 1960:vii).

Without water the population would soon have died of thirst in the extreme heat. Still, despite the Nile’s fundamental and vital role in the Egyptian civilisation, it never attained the status of a supreme deity. This place was reserved for the sun, which became ancient Egypt’s greatest god. ‘Although the Nile was the obvious giver of life to the early men of Egypt it was not the great river and its precious waters that first stirred thoughts of worship in their primitive minds. It was the sun, relentless bearer of death, that they supplicated’ (MacQuitty 1976:50). Ra was the sun and all the pharaohs were the Son of Ra – Horus. This seems paradoxical: why worship the sun in a desert environment where temperatures reach 50°C in the summer months?

In many parts of Africa the sun is seen as the enemy of mankind, scorching all forms of life (Wainewright 1938:1) and therefore embodying a contradiction to life.

Among the Bari of the White Nile in Sudan, prolonged sunshine was seen as the work of a malevolent rainmaker who was accused of ‘willing the sun’ and who could be put to death if the rains failed (Seligman 1932:295). In this context, the Egyptian worship of the sun in a desert where all life depended on the Nile is puzzling at first glance. Were the ancient Egyptians recklessly water-blind or did they not appreciate and realise the value of the Nile as the only artery of life-giving water for the people?

While it was never constant, the flood did occur every year and the river never failed entirely. Every year it came pouring out of the desert, rising from the south and flooding the Delta in September, the driest and hottest time of the year. In Egypt (fig. 2), the river ran through the harshest deserts without receiving water from a single tributary and hardly any rain (Moorehead 1960:viii).

The Egyptian civilisation was entirely dependent upon the river and its annual inundation, but the secrets of the inundation and the river’s sources were a mystery to the ancient Egyptians (Said 1993:ix). While the inundation was worshipped, the Nile itself – as a uniform river or phenomenon – was not and there was no supreme Nile god or goddess. Compared to Hinduism’s Mother Ganga or Saraswati, Yamuna or Indus, the Nile River acquired a unique religious status unlike any other river, but there never was a ‘traditional’ river god. And yet, in 1844 Champollion (1844:297-298) used the term ‘Nile god’. The problem is that a number of figures belong to this group, either through their association with the Nile as a river or the inundation as a process (Baines 1985a:112).

Hans Seth (1918) was the first to state explicitly in a short note that the term ‘Nile god’ was inappropriate or misleading. As John Baines argues, from then on most authors have discussed or alluded to the mistaken use of the term, but, at the same time, have continued to use it. He therefore introduces the term ‘fecundity figures’ instead of ‘fertility figures’, which can be equally misleading (Baines 1985a:115-116). The term ‘fecundity figure’ is used for what is usually referred to as ‘Nile gods’, and such figures are found from the Fourth Dynasty until the Roman period. ‘Fecundity figures’ are present on most of the major Egyptian antiquities in the form of hieroglyphic signs and depictions on temple reliefs, tombs, stelae, papyri, scarabs, furniture as well as statues and statuettes in various materials. The most important context is the temple relief (Baines 1985a:83).
In the Egyptian religion Hapi was closely associated with grain but not the Nile as such (fig. 3), although he is often referred to as a Nile or river god (Baines 1985a:113-115). Following Hornung,

‘There is a striking lack of personifications of waterways or stretches of water in the Egyptian pantheon. The so-called “Nile gods”, more recently termed “fecundity figures”, personify general concepts of abundance and its causes, among which the most prominent is the inundation...[but] they can scarcely be termed deities. There is neither a river god of the Nile (there are of course no other rivers in Egypt), nor deities of lakes...The only fecundity figure who takes on an independent existence as a deity is the inundation, Hapy’ (Hornung 1982:77-79).

The Classical Tradition

During classical antiquity the Hellenistic form of the river god Hapi was transmitted to the western world and used both for the Nile and other rivers (Baines 1985a:114). This is a late phenomenon, as Baines says, ‘Any explanation of the iconography based on the assumption that it expresses the attributes of the Nile/inundation is to be discounted for earlier periods, but not entirely for later’ (Baines 1985a:117). The absence of any obvious and all-encompassing, cosmically important river god or goddess is peculiar, particularly since classical Greek and Roman authors had great admiration and reverence for the Nile. At first glance it even seems as though they had a greater understanding of the river’s importance and worshipped it more assiduously than the Egyptians themselves. Herodotus is attributed with the phrase ‘Egypt is the gift of the Nile’, but most probably it stems from Hecataeus of Miletus who travelled through Egypt almost a century before Herodotus (Darby, Ghalioungui & Grivetti 1977a:32). Originally, Hecataeus used it probably with reference to the Delta only. Strabo used the phrase to refer to the whole of Egypt whereas Herodotus, as Hecataeus, was most probably referring only to the Delta. According to Herodotus, the Nile-created land extended for three days’ journey upstream, a belief that may have been borrowed from the Egyptians themselves (Griffiths 1966:57-59). Although Herodotus praised the mighty river, he apparently omitted the most important stage in the process, the actual inundation, and refers to the river merely as ‘being full’ (Quincey 1965:10).

Nevertheless, Herodotus and other classical writers were deeply fascinated and impressed by the river and its water, which they described as fresh and sweet (Wild 1981:90). Their veneration and adoration of the Nile included all aspects of a river worthy of being a god or goddess. Homer gave the Nile the name Aigyptos, thus equating the river to the country (Macfarquhar 1966:108). The Egyptians simply called the Nile ‘the river’ or ‘the great river’. The name ‘Nile’ seems to first appear in Hesiod, who refers to the river as ‘Neilos’.

Fig. 1. The annual inundation of the Nile in relation to the pyramids at Giza. Photo: Lehnert & Landrock 1924.
An interesting feature of the name is the numerical value of the Greek letters used in it (50, 5, 10, 30, 70, 200), which add up to 365 or the total number of days in a year, thus indicating that the Nile was everything (Lindsay 1968:39). For Herodotus and his successors ‘Neilos’ was common, which indicates that it may have been adopted in the eighth century BCE (Goedicke 1979).

Thales is believed to have been taught by Egyptian priests (Kamil 2002:5), and in his philosophy everything came from water: water was the prime substance the world rested on (Dicks 1959:296). The Syrian writer Heliodorus wrote that the Nile is called ‘Horus’, ‘the giver of life’, ‘the saviour of all Egypt, both Upper and Lower Egypt’, ‘the father of Egypt’, ‘the creator of Egypt’, ‘he who brings new mud each year’. Seneca also discusses the importance of the silt which the Nile deposits on its banks annually: ‘...it renders a two-fold service to the fields...Egypt owes to the Nile not only the fertility of the land but the very land itself’. According to Philostratus, the gymnosophists of Egypt recognised this dual nature, because they rendered ‘cultic worship to the Nile in particular, for they consider this river to be both earth and water’ (Wild 1981:94).

All of Egypt was made up of the Nile: the silt created the land and the water gave it life – both qualities and outcomes of the flood, which created an extremely fertile environment. Theocritus emphasised that ‘No land produces as much as Egypt when the Nile floods’ and Themistius proclaimed that the Nile is ‘the father of crops’ (Wild 1981:93).
Fig. 3. Hapi. Dendera. Photo: Terje Oestigaard.
The Nile was the most spectacular river in the world, in the words of Diodorus: ‘The Nile surpasses all the rivers of the inhabited world in the benefactions to humanity’. According to Seneca, all rivers were ‘vulgares aqua’, but the Nile was the ‘most noble’ of all watercourses. Arnobius proclaimed that the Nile was ‘the greatest of rivers’ and according to Ammianus Marcellinus it was ‘a river which is kindly to all’ (Wild 1981:88).

The Greeks and Romans worshipped the Nile as the greatest of all rivers and were deeply impressed and fascinated by the river in particular and water in general. This is important since they were not only direct successors to the Egyptians, but also met them and had firsthand information about their cult and religion, which they eventually transformed into their own religion and divine pantheon. The Greeks and Romans lived in an environment where life and death depended on a number of water sources although they were all considered inferior to the Nile. Hence, their obsession with the Nile can be seen as reverence for the ultimate source of water encompassing all other types of water. This makes the absence of a similar veneration of the Nile in Egyptian sources even more puzzling.

Almost every surviving classical work contains references to Egypt and its culture, and the Greek fascination with Egypt remained constant throughout antiquity. The second book of Herodotus’ History of the Persian War, the first book of Diodorus’ Library of History, the seventeenth book of Strabo’s Geography, and Plutarch’s monograph On Isis and Osiris are, however, the only comprehensive Greek accounts of Egypt that survive today (Burstein 1996:591-592). The classical authors mainly focused on the relation between rain and rivers, and the superiority of a river such as the Nile. In general in Mediterranean climates, rain is more important than rivers and springs as it fertilises the soil. Throughout antiquity, ‘Rivalry between the Nile and the Rain’ is a recurrent literary motif. At least 23 writers deal with this theme from the fifth century BCE to the fifth century CE. According to many of these authors, the people of the Nile live in superior circumstances because they are not dependent upon Zeus to supply their needs. Still, they emphasise that the rain does the same as the Nile, although it does so less efficiently and effectively than the marvellous river. Moreover, at least in Roman times, Isis bears the title ‘Mistress of the Rain’ and Horus was linked both to the Nile and the rain (Wild 1981:64-65).

For the Egyptians the Nile was the ‘secret nature’ (Kakosy 1982:296). Although the River Nile was not worshipped as a deity itself, the life-giving waters were of utmost importance, and in particular the annual inundation with its inherent rejuvenating and procreative powers that brought new life in all its forms. This was the power of Osiris. To the ancient Egyptian agriculturalists ‘The Nile’ designated the actual Nile flood, not the river in itself, which was simply called ‘the river of Egypt’. In Osiran hymns ‘the waters’ refer to the inundation which generates fertility (Hornblower 1937a:155).

The Nile and Osiris

Knowledge about Osiris and his cult stem from three key sources: Plutarch’s second-century CE On Isis and Osiris (Witt 1971); the Pyramid Texts from the Fifth and the Sixth Dynasties; and evidences of the Festival of Osiris in the form of reliefs and inscriptions on the walls of certain temples (David 1981:120). Plutarch’s account of Osiris is the most comprehensive. However, what is remarkable is that despite the almost 3000-year period that separates the Pyramid Texts from Plutarch’s account, all of these sources share the same basic water structure focused around the Osiris cult, despite the fact that it evolved over time.

Osiris appears as the divine power immanent within the Nile, and particularly within the waters of the flood. The low Nile signified the god’s disappearance, which was mourned, while the arrival of the flood signified Osiris’ revitalisation and restoration. The Nile’s inundation was celebrated with great festivals (Merkelbach 1963:14-19). Osiris was the god of the life-giving inundation which created fertility (Hornblower 1937a). It was not water as such that was worshipped, but its inherent power of rejuvenation and recreation.

Following Plutarch, ‘the more wise of the priests call not only the Nile Osiris, and the sea Typhon [Seth]; but [they call] without exception every source and power that moistens, Osiris – considering [him] cause of generation and essence of seed, and Typhon everything dry and fiery, and of a drying nature generally and one hostile to moisture’ (Plutarch 33:1).

The evidences for the Osiris cult are both archaeological objects and written texts. When the Osiris cult started is uncertain, but it seems clear that it was widespread as early as the First Dynasty. The material culture in the early centuries of the Egyptian state yields a single pantheon of gods (Quirke 1992:73). Evidence for the Osiris cult prior to the Unification is obscure, but Abydos was most probably its first centre (David 1981:120). However, it was Sneferu in the Fourth Dynasty who accepted the Osiris myth as part of the royal dogma (Ricke 1950:218ff).

There are three main groups of texts from the Dynastic periods concerning the afterlife and the role of Osiris as the god of death. The first group is the Pyramid Texts (Faulkner 1969), which were inscribed in the royal pyramids of the Fifth and the Sixth Dynasties (ca. 2500-2170 BCE). Unlike later religious texts, these were not accompanied by images. The second group is the Coffin Texts, which were inscribed inside the coffins of the deceased. The Coffin Texts appear from the First Intermediate Period (ca. 2150 BCE) onwards. The third and most famous written source is the Egyptian Book of the Dead or The Book of Going Forth by Day, which appears from the Thirteenth Dynasty (ca. 1759-1630 BCE) (Goellet 1994:139-140).
The Pyramid Texts were initially only intended for the king or the royal family, and they contain the first definite appearance of Osiris. The association of the deceased king with Osiris strongly connects the king with the god, and this relation is crucial in the creation of the divine kingdom. From that time Osiris was the principal deity of the next world. The Coffin Texts are in a way reinterpretations of the Pyramid Texts, with the difference that in the Coffin Texts every deceased can be identified with Osiris. The Coffin Texts provide for the first time evidence of the idea that the deceased is judged in the afterlife for his or her deeds and that the trial takes place in front of Osiris. In the Egyptian Book of the Dead Osiris ruled as a living king of Egypt together with his wife and sister Isis (fig. 4) (Goelet 1994).

The Horus-Osiris-Seth mythology answers two questions; first, how is it possible to understand the death of a god who appeared as a human being, and second, how is it possible to conceive of a universal god (Anthes 1959:183)? The origin of Osiris is still ‘an insoluble mystery’ and Osiris could be described as a ‘personification of dead kingship’ (Gardiner 1960:104). The image of Osiris is comprised of two forms of gods and rival theories; a fertility god and the divine king of the Nether World. Hornblower among others favoured the former theory whereas Sethe is generally credited with the latter theory (Griffiths 1948:83). Alan H. Gardiner formulated the problem in 1915: ‘What Egyptologists wish to know about Osiris beyond anything else is how and by what means he became associated with the process of vegetable life, if originally he was a
king; if, on the other hand, he was originally a spirit of vegetation, how and by what means did he become connected to kingship?” (Gardiner 1915:122).

There are two myth themes that relate to these facets of Osiris as a fertility god and as a deceased king. According to a central myth, Seth drowned his brother Osiris in the Nile. The drowning is generally related to his role both as the god of waters and as the ruler of the Nether World. Osiris possessed generative powers as the personification of the falling and rising Nile (Troy 1986:36). Osiris was the first who died, and his transfiguration through inundation was the key to eternal life. As the god of arable land, he was drowned with the soil in which he lived and worked (Wagner 1967:116-124). He was a dying god when the water decreased, and the sowing of grain was celebrated as his death or burial. The seed corn had to die in the earth to raise the crops, and it was from the Nether World, which was Osiris’ realm, that life re-emerged (Frankfort 1958:146).

Regarding the resuscitation of Osiris, another myth theme links the god to the divine kingdom: Seth strikes Osiris down, but his son, Horus, kills Seth and gives his father the Solar Eye. Horus was identified with the rising sun and the solar complex. The Solar Eye contains the rejuvenating powers which gave Osiris life; it was also identified as the daughter of Ra (Troy 1986:41-43).

This feud between Osiris and Seth is, however, a later one, dating from the Fifth Dynasty. The original and earlier feud is between Horus the Elder and Seth. Seth struck and violated Horus and pulled out one of his eyes. Horus grabbed one of Seth’s testicles and made him impotent. Originally a rain god, Seth through this aggression lost his powers, which literally were in the hands of Horus. Thus, an interchange took place between the gods who possessed the life-giving waters. The former rain god was replaced by Horus, whose most prominent symbol was the Solar Eye. This myth seems to merge with the original Osiris myth. Hence, all kings were linear descendants of Horus, who after death were identified with Osiris (Meeks & Favard-Meeks 1996:16-32). The deceased becomes Osiris and hence eternal (Antelme 1998).

By being mumified and undergoing the same treatment as Osiris, the deceased also escaped decomposition and gained eternal life. Osiris was revitalised by being washed (Barton 1936:158). Osiris was not reborn by the life-giving powers of the waters, but they gave him life as the king of the Nether World (Blackman 1918:118). All ideas of a new life arising from decay and corruption were centred in Osiris. Isis, Osiris’ wife and sister, was a great sorceress. And while she did little to help Osiris overcome his enemy Seth, she gave him the power to overcome death and decay. Not only did she rescue Osiris from bodily decay, she also brought forth a child god as a symbol of rejuvenation and endless youth (Scott-Moncrieff 1909:80-81).

In Egypt there was a deep preoccupation with life after death (fig. 5). Consequently, the concept of a dying god must have attained a specific form with a particular relevance to Osiris: 1) Osiris was life appearing from apparent death, 2) Osiris was also a dead king, and 3) Osiris was forever confined to the Nether World. These three premises are not contradictory, but rather complementary (Frankfort 1958:145). Osiris personified natural vitality. It was not the general generative force which is present in plants and animals; Osiris’ power was both larger and more specialised. His power was connected to those forms of life which arose periodically from the earth such as grain, but also the moon and the constellation of Orion. Still, although Osiris was manifest in these phenomena, he was also considered to be a deceased king. ‘The divine king’ possessed a peculiar power and quality similar to the rainmaking kings of the Dinka, Shilluk or Baganda, and this quality was not necessarily extinguished with death. Kings succeeded each other, but each of them incarnated the same god, Horus, and Osiris was every current ruler’s deceased father. Moreover, Osiris was in the Nether World a dead king with the power to make grain grow and control the rise of the Nile water (Frankfort 1958:145).

‘was a dying god in so far as the decrease of the water in the Nile, and the sowing of the grain was celebrated as his death or burial. But the realm of death is precisely the sphere of Osiris’ power, because it does not represent the antithesis of life but a phase through which all natural life passes to emerge reborn. The seed-corn must die in the earth to raise the crops, the Nile must dwindle in its bed to rise in the fertilizing flood, the moon must wane and even the sun sink each night in the west to enter the nether world. It is this nether world from which life re-emerges, which is Osiris’ realm’ (Frankfort 1958:146).

Thus, it is from death that life emerges, and this conception, which pervaded all of Egypt and its religious life, was inevitably bound to the Nile, Osiris and monumental sepulchres. The relation between death and life-giving waters was fundamental in Egypt. According to Plutarch in his On Isis and Osiris, the Egyptians call not only the Nile, but all water in general, ‘the discharge of Osiris (Osiridos aporrhoe)’ or Osiris’ ‘eflux’. ‘And they call not only the Nile, but also without distinction all that is moist. “Osiris’ efflux”’, and the water-vase always heads the processions of the priests in honour of the God’ (Plutarch 36.1).

Water was designated as ‘the discharge of the corpse of Osiris’, particularly when it was offered to the deceased in the form of libation in the mortuary cult, which was the central ceremony in funeral rites (Assmann 2005:355). Rejuvenation and creation of new life from death are therefore the two most important concepts necessary to grasp the meaning of regarding the cosmological water-worlds in ancient Egypt. ‘In the Soul [of cosmos], then, Mind and Reason (Logos), the guide and lord of all the best in it, is Osiris; and so in earth and air and water and heaven and stars, that which is ordered and appointed and in health, is the efflux of Osiris, reflected in seasons and temperatures and periods’ (Plutarch 49.3). This perception is not a late Greek invention because it is referred to several times in the Pyramid Texts, as for instance
‘O King, receive this your cold water, for you have coolness with Horus in your name of “Him who issued from cold water”. Receive your natron that you may be divine, for Nūt has caused you to be a god in your foe in your name of “God”. Receive the efflux which issued from you, for Horus has caused the gods to assemble for you in the place where you went. Receive the efflux which issued from you, for Horus has caused his children to muster for you in the place where you drowned. Harrenpi recognizes you, you being youthful in this your name of “Fresh Water”. Horus is a soul and he recognizes his father in you in his name of “Horus of the Soul-of-the-King litter”’ [Pyr. 765-767].

Thus, from the moment Osiris entered the historical scene in the Pyramid Texts, he embodied the life-giving qualities of the waters and the Nile inundation in particular. Death and the life-giving waters were intimately interwoven in ancient Egyptian religion, and my main objective is therefore to develop a synthetic perspective for enhancing the understanding of the religious roles water had in the rise and constitution of the Egyptian civilisation during the Early Dynastic Period and the Old Kingdom.

**A Water Perspective**

In order to achieve this goal it is necessary to develop a theory in which water not only forms the analytical framework, but also provides empirical data that allow for new questions to be addressed. The water world and the Nile continuously change character and attributes, and it is only by addressing these changes that one may gain a deeper insight into Ancient Egypt’s religious water worlds and the question of why the Nile was not the supreme deity, but did nevertheless have a fundamental and pervasive role in society and cosmos. While I am not an Egyptologist, my approach comes from an archaeological, inter-disciplinary and comparative water perspective, and forms the continuation of previous cross-cultural and comparative studies on the role of death and life-giving waters in the shaping of society and cosmological views in parts of Nepal, Bangladesh, India, and the Indus Valley in contemporary Pakistan (Oestigaard 2005a), together with comparative studies aiming to enhance the understanding of the role water plays in religion and the constitution of society in history (Oestigaard 2003, 2005a, 2005b, 2009a, 2009b, 2009c, 2010a, 2010b, Oestigaard in press, Tvedt & Oestigaard 2006a, 2006b, 2010a, 2010b).
In water studies, water is used not only as a perspective, but also as the source of primary data itself. In order to understand the role of water in societies, it is necessary to adopt an inter-disciplinary approach that goes beyond the rigid boundaries that can often be observed in academia. As a perspective, this analysis will use already excavated archaeological material and the subsequent interpretations, paleobotanic/geo-archaeological and hydrological data, and written sources. Consequently, this will include a mixture of primary materials and syntheses, drawn from various traditions of scholarship from the turn of the twentieth century onwards. By nature, this material will be of varying reliability, but will still provide a source for reinterpretation and re-contextualisation.

As the primary data, water and the river Nile are the main sources of interpretation. Osiris was intimately connected with the annual inundation (fig. 6). Given the premise that Egypt’s overall hydrological parameters have not changed significantly since pharaonic times, the fluctuations of the water levels which were fundamental for the Ancient Egyptians are still visible in Sudan and Ethiopia although the changing qualities and characteristics of the Nile cannot be seen in Egypt today due to the Aswan Dam.

Thus, by using the Nile itself as the point of departure, I aim to analyse how, why and when religious changes took place, with a particular emphasis on the development of the Osiris cult. This will include contemporary written sources, in particular the Pyramid Texts, but also other mortuary texts as well as flood records. The evolution of the Osiris cult will then be analysed in relation to the development of the mortuary monuments; the mastabas in the First and the Second Dynasties and the emergence of the pyramids from the Third Dynasty. Hence, by comparing the different funerary monuments and practices with the emergence of the Osiris cult in relation to climatic changes and fluctuations in the Nile’s yearly inundation, my aim is to analyse the Ancient Egyptian religion and the rise of the civilisation from a water perspective. It is important to note that the Blue Nile was not blue, but red-brownish during the flood. This point will be elaborated with reference to reports by early twentieth-century travellers and researchers. When the flood started, the White Nile was not white, but green (see cover photo). These fundamental characteristics of the Nile water, I will argue, formed the basis for the Osiris mythology. The red floodwaters in particular represented the blood of the slain Osiris.
Chapter 2: 
Climate and Cosmos

The Egyptian Water World

The Egyptian civilisation (ca. 3000-332 BCE) developed in one of the largest and driest desert areas in the world, and this was only possible thanks to the Nile (Kemp 2006:8). During the Pharaonic period, the civilisation was dependent on the Nile, and the summer inundation created an agricultural economy based on the annual floods. The three seasons formed the basis of the Egyptian calendar: Akhet (inundation), Peret (growing), and Shemu (drought), which was an ideal natural cycle (Kemp 2006:10). The life-giving water was essential not only for the economy, but also as a constitutive part of the Ancient Egyptian religious worldview. And yet, while the Nile was the very essence and basis of the civilisation, the role of the river and water in Ancient Egypt has to date been poorly understood. Traditionally, there have been two dominant theories regarding the rise of early civilisations. On the one hand, Karl Wittfogel (1957) argued in Oriental Despotism that large-scale irrigation systems gave rise to despotic and bureaucratic states. On the other hand, Robert Carneiro (1970) put forward the theory that a population increase in a restricted area such as the Nile Valley led to warfare and subsequently to hierarchies and the rise of civilisation. However, neither of these theories explains the empirical evidence and the historical development in Egypt.

Military generalship did not become intrinsic to the status of the Egyptian king before the second millennium BCE. Irrigation and agriculture were administered at a local rather than a national level; there was no centralised canal network and lifting devices were introduced late. In the Old and Middle Kingdoms, water was lifted manually with pots and buckets (Said 1993:193). Irrigation was a local matter beyond government control, and in ancient times the only machine for irrigation was the simple shaduf (fig. 7). Images of the device can be found in tombs from the late Eighteenth Dynasty (c. 1350 BCE), in scenes depicting men watering gardens (fig. 8). In earlier scenes, water is carried in pairs of pottery jars, indicating that these pictures do not portray the irrigation of strategic crops, but the watering of minor vegetable plots and/or flowerbeds. It also further strengthens the argument that large-scale agriculture focused on a single crop that was dependent upon the yearly inundation (Kemp 2006:11-12).

V. Gordon Childe proposed the hypothesis that the origin of civilisations in Egypt and Mesopotamia was a consequence of drier conditions, which forced people to migrate from the surrounding deserts:

"Enforced concentration in oases or by the banks of ever more precarious springs and streams would require an intensified search for means of nourishment. Animals and man would be herded together round pools and wadis that were growing increasingly isolated by desert tracts and such enforced juxtaposition might almost of itself promote that sort of symbiosis between man and beast signified in the word “domestication”" (Childe 1934:42).

However, many scholars, like Kemp, have argued against climatic and economic explanations: ‘It has sometimes been thought that organized society – civilisation – in Egypt and elsewhere arose from the need for collective effort to control rivers to allow agriculture to develop. In the case of Egypt one can state that this was not so. The origin of civilisation is not to be sought in something so simple’ (Kemp 2006:12). Moreover, the Delta must in earlier times have been an unchannelled and undrained swamp, which is not likely to have fostered the birth of a high civilisation (Hornblower 1945:60). Wenke states that ‘the Nile offered the same approximate natural resource for the whole period of evolving Egyptian social complexity. Thus in a sense the most interesting patterns of cultural changes are those that cannot be explained in terms of flood variations’ (Wenke 1989:134).

Still, even though simple economic explanations fail, it was a water civilisation in the desert. The Nile was the artery in Pharaonic Dynasties, and environmentally there was a huge variation in the Nile floods both annually and throughout the millennia. The human responses to the changing landscape and water environment are therefore analytical entrances which may enhance the understanding of cultural processes and the rise and constitution of early civilisations. Water as an element in nature has rarely been incorporated and analysed as an ageny in the construction of society and religion, but nevertheless, the materiality and spatiality of the water.

*Fig. 7. The traditional shaduf. From Mitton 1930:97.*
worlds are entry points into the constitutive structures and mechanisms at work in history (Tvedt 2004:3-7). A water perspective will therefore be developed in parallel with an analysis of water in its many forms as empirical data. Fresh water represents deep ontology, and the water worlds in a society create opportunities for all kinds of constructions (Tvedt 1997, 2004). The hydrological cycle links all places and spheres together, and water transcends the common categories in which we conceptualise the world (Tvedt 2002:166-168, Oestigaard 2005a, 2005b).

Although not from a water perspective, Robert Wenke once warned that ‘post-processual’ theories and ideas are not useful for analyses of the origin of civilisations in general and Egypt in particular, but as he emphasised, ‘if archaeological explanations can ever usefully incorporate social theory, Egypt would seem to be the ideal case to demonstrate this…Egypt may once again become a primary data base for attempts to explain and understand cultural complexity’ (Wenke 1989:132, see Wenke 2009). As opposed to post-processual archaeology and the postmodern stance, the water world is not only a matter of human constructions (see Insoll 2007), but forges an intimate relation between culture and nature in which water is used as a metaphor that at once transcends and defines nature/culture. Following Fredrik Barth, ‘there is a real world out there – but…our representations of that world are constructions’ (Barth 1989:87). Ecological constraints can be necessary but not sufficient conditions for natural symbolism. People create and apply ‘cultural constructions in a struggle to grasp the world, relate to it, and manipulate it through concepts, knowledge and acts’ (Barth 1989:87). It is important to note that the metaphors are seldom arbitrary and usually relate to the real world (Barth 1975). As I will argue later, the variations in the annual inundation and the physical characteristics of the Nile formed the core of the Egyptian civilisation and its rich mythology.

The changing qualities of the Nile and its annual inundations open up a new empirical reality with wide-ranging theoretical implications. Water is both culture and nature. As nature, water has a number of particular and peculiar qualities which no other natural elements have. Thus, by placing an emphasis on water nature has to be deconstructed in order to construct society. When humans adapt to nature, they do not adapt to nature as a unified whole, since nature consists of different elements with various properties. Consequently, the relation between nature and society will vary according to the elements one focuses on, and humans interact only with elements of the total environment or ‘nature’, with some elements being more important than others. Interaction with gold, birds or flowers falls under a different category than water as an element of nature, and water appears in many forms in the hydrological cycle. In Ancient Egypt, where there was hardly any rain, all life was dependent upon the annual flood, and this particular water world gave rise to specific social constructions and ideas of water, which materialised in images and representations of water in religion and myths. They are an entrance into the structuring mechanisms and provide an understanding of the society which produced them (Tvedt & Oestigaard 2010b:2-5).

The worlds of water are the numerous life worlds and webs of significance people have spun around water as a natural phenomenon. Reflecting the many aspects of human life expressed through water symbolism and the rich ocean of metaphors, I will focus on three main areas of the worlds of water: 1) Water as a medium for control and social hierarchisation, 2) water as a medium for understanding and cultural elaborations, and 3) water as a medium for religious and divine interaction. When water is incorporated in social and religious spheres as an intrinsic component, structuring variable, and constitutive agents in society and religion, these spheres are not mutually exclusive, but interact and overlap with each other (Tvedt & Oestigaard 2006b:xvi).

The Blue Nile, the White Nile and the Flood

Both the Nubian and Egyptian civilisations shared the same river, the Nile (O’Connor 1993:xi). The Blue Nile and the White Nile come together in the Sudanese capital Khartoum to form the river Nile (fig. 9), which absorbs the water from the Atbara, a tributary river to the north of the capital. The flood occurs as a result of the rising of
the water of the Blue Nile and the Atbara River. The Egyptian-Nubian Nile is unique among the world’s rivers as it passes through the desert without receiving a substantial inflow of water for 2,700 kilometres. Today, measured at Aswan, the Ethiopian Nile tributaries contribute more than 80 percent of the water of the Nile’s main flow (Tvedt 2010:9).

The White Nile passes through a large part of equatorial Africa, which has a considerable rainfall distributed quite evenly throughout the year, and flows through two large lakes, Victoria and Albert. The White Nile discharges an almost constant volume throughout the year (Brooke 1949:329-330), whereas the Blue Nile and the Atbara River are highly seasonal. The Blue and the White Nile have distinctive characteristics with regards to maximum and minimum flow. The White Nile has been described as the ‘the great unknown’ and the Blue Nile as ‘The Everest of rivers’ and ‘The last unconquered hell on earth’ (fig. 10) (Blashford-Snell et al. 1970:43). The Blue Nile provides on average 68 percent of the maximum monthly discharge, but only 17 percent of the minimum monthly discharge. The White Nile, on the other hand, provides only 10 percent of the maximum monthly discharge but a vital 83 percent of the minimum monthly discharge. The Atbara, the other Ethiopian tributary, is even more irregular. For eight months a year it is dry, but during the flood it provides 22 percent of the maximum Nile flow, as well as huge amounts of silt. ‘Put concisely, the Blue Nile and the Atbara provide Egypt with its summer floods and flood silts but the White Nile provides the bulk of the water to the main Nile during the dry winter months’ (Williams et al. 2006:2653). Normally, in dry years, the White Nile has been the guarantor of perennial flow in the Nile and the swamps in southern Sudan. It therefore plays a crucial role in buffering seasonal fluctuations in Nile discharge (Williams et al. 2006:2653).

The Nile has literally been on the move. At Giza, the riverbed may have shifted up to two kilometres every thousand years. When the construction of the pyramids started at Giza in the Fourth Dynasty, a branch of the Nile ran as far west as the building site, but by the time that the causeways of Khufu’s pyramid were completed, this branch appears to have moved eastward. Khufu was able to take advantage of the river’s location, but when Menkaure built his pyramid, he struggled against the elements, which may partly explain why his pyramid was never completed (Bunbury & Lutley 2008). The temple complexes at Karnak were first established during the First Intermediate Period, and it appears that the locations were strongly influenced by the river’s presence. There are various hypotheses in this context: one hypothesis is that the temples were located within the river’s floodplain and connected to the Nile by a number of channels; an alternative hypothesis suggests the temples were originally located on an island (Bunbury, Graham & Hunter 2008:351).
The river course’s size and volume have constantly been changing. When the river overflowed its banks, the silt raised the riverbed. The banks could be of considerable height and after some years the water would break through these natural dikes and seek new courses in low-lying parts. Hence, the old beds turned into swamps, and the old banks became ridges suitable for human settlement. ‘We must imagine the valley, not flat and featureless as it is to-day, but dotted with hamlets perched on the high banks of former watercourses and surrounded by an ever-changing maze of channels, marsh, and meadow’ (Frankfort 1951a:41).

The length and volume of the flood have varied considerably through time. Based on measurements from 1890-1935, the average duration of the flood was about 110 days (fig. 11). Within this period there were four years in which the flood lasted less than 75 days. There were 12 years in which it lasted more than 125 days. The maximum duration was 162 days (Said 1993:97). A disastrously high Nile could wash away entire irrigation systems (Said 1993:128), and high floods were as damaging for society and the crops as low inundations. Arab authors have mentioned that in years of abnormally low floods, the ‘old waters’ or the pre-flood Nile would also be unusually low. Similarly, there was a tendency for the old waters to be high before very large floods. Moreover, ‘one obtains...an impression that the total volume of flood water fluctuates more than the height of the flood. One frequently reads that the flood attained a normal height, then declined at once and there was famine, or at least scarcity, in Egypt’ (Bell 1971:7). Thus, the amount of water was dependent upon three variables; the length of time the flood lasted, its height, and the period of time it stayed at various heights. All these factors were of course dependent upon the annual amount of rain in Ethiopia – ‘The Water Tower of Africa’.

Today, the desert west of the Nile is one of the driest places on earth (Nicol 2001), and as Butzer argues, ‘It has become difficult to ignore the possibility that major segments of Ancient Egyptian history may be unintelligible without recourse to an ecological perspective’ (Butzer 1976:56). Climatically, the rise of the Egyptian civilisation must be related to the end of Neolithic Wet Phase and the general decline of the Nile’s flood levels. In Egypt, it was a rainy interlude which ended in the ‘Early Predynastic Period’ (ca. 4000 BCE) (Murray 1951:429). The Holocene Wet Phase affected the area that today lies within the 100-500mm rain zone, which runs from the Senegal River to the Nile River. During the Holocene Wet Phase the Nile’s catchment area became larger and consequently the river became more abundant than earlier seasonal rivers, and the Nile was a larger river than it is today, with many times the present discharge (Said 1993:55, 128-129).
In Egypt, the maximum of moisture occurred around 5000-4000 BCE, and the overall ecological conditions worsened dramatically around 3500-2800 BCE (Butzer 1995:132-133). The substantial decline in Nile levels during the Early Dynastic period (ca. 3000-2800 BCE) would have implied a 30 percent reduction in the volume of water before stabilising during the Third to the Fifth Dynasties at a slightly higher level (Butzer 1995:135).

The difference between the average inundation from the Second to the Fifth Dynasties is 0.7 metres lower than it was in the First Dynasty if one assumes that there was a fixed zero-point which rose at a uniform rate corresponding to the alluvium (fig. 12). The determination of a fixed zero-point is, however, complicated by the rise of the riverbed due to the annual deposits of silt. An average of 10cm per century has been suggested (Bell 1970:571-572), although this will vary substantially per area and time period (Butzer 1959). If the rise of the alluvium was more rapid than an estimated 10cm per century, then the decline in the flood level would have been even larger (Bell 1970:572).

If one assumes that the measurements on the Palermo Stone (which will be discussed below) give the height of the flood in the Memphis basin, then it is reasonable to estimate that the floods had a magnitude of 130 billion cubic metres from the Third to the Fifth Dynasties (roughly equal to the discharge in 1878 and 1887) and the average rise of the river in the basin was around 1.8 metres. The First Dynasty flood, however, would have been around 50 percent higher, around 200 billion cubic metres per year. In the Second Dynasty, on the contrary, some floods were low and the discharges may have been around 80 billion cubic metres per year and consequently large areas of land must have been left uncultivated. The rains of the Holocene Wet Phase ended around the end of the Fifth Dynasty, and the level of rain in the Fifth Dynasty equals today’s levels. There were periodic fluctuations, but nothing like the heavy, sustained rains of the previous period (Said 1993:138).

The Nile appears to have reached its lowest point around 2200 BCE, with frequent fluctuations during the following 200-year period. The Nilometers do not record these natural events; instead the data is based on literary documents from this and later periods. Based on examination of literary sources in combination with paleo-climatic data, Barbara Bell has argued that during the First Intermediate Period there were widespread, enduring and more severe droughts than have ever occurred in modern times (Bell 1971). Severe famines plagued prehistoric populations, which imply that the food supply dropped below the critical level for subsistence. This may be the consequence of occasional failures of several consecutive harvests, but also ‘enduring and disastrous destruction of the annual yield as only a drastic climatic change could have occasioned’

Fig. 11. The flood in 1924. Photo: Lehnert & Landrock 1924.
The severe droughts in Egypt which seem to have occurred between 2200 and 2000 BCE took place in two main periods, the first from 2180-2150/2130 BCE and the second for a few years around 2000 BCE (Bell 1971:3, 8). Climatic proxy data from the Fayum Oasis have been used to support this hypothesis (e.g. Hassan 1981, 1997a), which has its origin in Vandier’s (1936) *La famine dans l’Egypte Ancienne*.

Although it is widely accepted that abrupt climate change caused severe drought which in turn led to the collapse of the Old Kingdom (e.g. Bell 1971, Hassan 1981, 1984, 1986a, 1986b, 1997a, 1997b, 1997c, 2002, 2004), the actual evidence for this theory is scarce, and several authors argue that there was no climatic crisis or low Nile floods during the First Intermediate Period. Karl Butzer has in several publications emphasised that ‘examination of the historical record suggests that Old Kingdom collapse was unrelated to Nile failure’ (Butzer 1997:245) and ‘The physical evidence does not support a Nile flood crisis at the end of the 6th Dynasty’ (Butzer 1999:570). On the contrary, while three extremely low Nile floods were recorded between 2200-2000 BCE, the Ancient Egyptians during this period suffered more from destructively high floods (Butzer 1997:257).

Similarly, Nadine Moeller (2005) has thoroughly investigated the data, and particularly from Egypt the methodological problems are severe due to the lack of conclusive proxy data and the absence of high-resolution chronology for the First Intermediate Period, a period of maximum 150 years (Moeller 2005:154). At Elephantine it is assumed that the height of buildings took maximum inundation levels into consideration. There are remains from several fortresses: the First Dynasty fortress was built 96m above sea level (asl). The buildings from the Second Dynasty were lower at 94m asl, while the Fourth and Fifth Dynasty dwellings are situated at 93,5m asl. During the Sixth Dynasty buildings were constructed at an even lower level, and those which are located on top of fluvial sediments were about 92m asl. After the Sixth Dynasty, the area of fluvial sediments was filled up to 93m asl, but this area was flooded, indicating that some floods were exceptionally high during the First Intermediate Period, which the population had anticipated. These data are important because in the First Cataract area erosion probably played a minor role in comparison to the Nile riverbed further north and the Delta. Thus, the data indicate that there were relatively low floods during the Sixth Dynasty, and that the inundation became higher afterwards (Moeller 2005:156).

Another proposed indicator for climate change and drier conditions has been the increased dune encroachment. One theory suggests an inverted relationship between the height of the flood and the volume of deposits; the lower the flood, the higher the sediment deposits (e.g. Krom et. al 2002). In the period from 4500 to 4200 cal. BP, there is an increase in the volume of sediments. However, sand drift occurred continuously throughout the Old Kingdom.
(and later). In the Fourth Dynasty, buildings in a town near the Red Pyramid were buried in 1 to 1.5m of sterile drift sand. The build-up of sand took place some time between the Old Kingdom and the First Intermediate Period, and was caused by the movement of dunes from the eastern desert, which shifted up to 600 metres into the floodplain (Moeller 2005:158). At Giza, this process started by the end of the Fourth Dynasty, leading to the settlement’s abandonment by the end of the dynasty. Hence, by the ‘First Intermediate Period most of the old Kingdom structures were probably covered in sand’ (Moeller 2005:160) – with the exception, obviously, of the pyramids. The question is how the movement of sand dunes relates to environmental factors. Large-scale movements of sand can generally be ascribed to three factors: strong wind activity, the level of moisture and the cover of existing vegetation. Importantly, ‘the increased Aeolian activity responsible for the movements of dunes is not in any way directly related to low Nile floods. It is simply an indication for drier and windier weather conditions’ (Moeller 2005:160). Moreover, even if Egypt’s deserts had a drier and warmer microclimate, this does not automatically affect the annual inundation, which originated in the Ethiopian highlands.

Proxy data from Lake Fayum is considered to be an additional source for tracing trends in climate change and variations in the Nile since the lake levels are directly linked to the Nile by the subsidiary branch Bar el-Yussef. A number of 14C dates have been taken from the Palaeolithic and Neolithic periods. However, from the period between Early Dynastic Period and the Middle Kingdom ‘almost no radiocarbon dating has been carried out for samples of this period [...] Except for one reported sample dating to 3890 ± 45 BP’ (Moeller 2005:160-161). Thus, Moeller concludes:

‘...the diagrams reconstructing Fayum lake levels in the 3rd millennium are uncertain and repeated references to the close relation between lake level fluctuations and Nile flood variations which are supposed to follow the same trends do not provide new data but are a circular argument. Again, there are no independent data for reconstructing the lake levels in the Fayum and thus they cannot be used to shed light on climate conditions during the First Intermediate Period!’ (Moeller 2005:162).

Hence, there are no evidences for devastatingly low Nile levels which might have caused the collapse of the Old Kingdom, although the general conditions became drier (Moeller 2005:167). The famine texts were the basis for the theory – first presented by Vandier in 1936 that there would have been a broad crisis during the First Intermediate Period. Inscriptions stating that certain individuals provided food to the hungry are quite common from the Old Kingdom onwards, and this type of literature develops into more elaborate statements in the First Intermediate Period. To what extent these texts represented real events is difficult to say, but it is important to note that these inscriptions were written for the afterlife and were an ideological construct intended for the descendents in the living world. The aim of the texts was to ensure a good afterlife for the deceased and to leave him with a good reputation, which may mean that his efforts to help the poor and hungry may have been exaggerated (Moeller 2005:165-166). Consequently, Butzer warns about making a cause-and-effect relation between climate change and cultural responses and societal changes; ‘[I am] not disputing that there was some sort of climate perturbation in Egypt around 2200 B.C. That climate may have been a participatory effect [in the collapse] is one thing, but to assign a causal role on the evidence so far seems to me unwarranted’ (op.cit. Abate 1994:518).

Therefore, although empirical data make it difficult to argue that there were severe low floods during the First Intermediate Period, there is substantial evidence of Nile fluctuations in the Old Kingdom with huge variations indicating both disastrous high and low floods. The most precise instrument for measuring the levels of the inundation was the Nilometers. The different flood levels and a general decline in volume of the annual inundations were also recorded on the Palermo Stone.

### Nilometers and the Palermo Stone

A Nilometer is an instrument or means of measuring the height of the Nile. Different types of Nilometers exist, but in general it consisted of some kind of fixed gauge. The simplest type consisted of basic marks or lines on a cliff bordering the river. A second type consisted of steps leading from the riverbank to the water; if the steps were all of equal size such a design would have been fairly accurate. The third and more efficient type came in the form of a well or cistern that was fed with Nile water through one or several conduits. The scale was either marked on the walls or, in the case of the Roda Nilometer in Cairo, on a standing column in the middle of the well (Popper 1951:1). The Roda Nilometer is today the most famous (fig. 13), with Nile level records from 641 to 1890 CE (see appendix 3). In ancient times however, the Nilometer at Elephantine was one of the most important (fig. 14). If the flood was too high irrigation could be ruined with fatal consequences; low floods, on the other hand, led also to food shortages. A difference of 40 to 60 centimetres in flood height could represent the difference between a prosperous year and a year of hardship and hunger, or even starvation. The Nilometers in Upper Egypt were therefore of utmost importance because information could be sent downstream (Wild 1981:25). Moreover, small variations in the flood level would have greater consequences in the lowlands (Lower Egypt) than in the regions where the river was restricted by hills on either side, since the water would be more spread out across the land (St. John 1999:14-16).

The measuring of the Nile’s height and the volume of the inundation goes back to the very foundation of the Egyptian civilisation, as evidenced by the Palermo Stone (see appendix 2). The Palermo Stone is a unique historical source for Ancient Egypt’s five first dynasties. It consists of seven surviving fragments; the Palermo Stone, the five Cairo fragments and the London fragment (Wilkinson 2000a:17).
Fig. 13. The Roda Nilometer, Cairo. Photo: Terje Oestigaard.
The annals themselves end in the Fifth Dynasty, suggesting that they were originally compiled around this time (Wilkinson 2000a:23). Helck has, on the contrary, suggested that the stone was inscribed at a much later date, ascribing it to the Twenty-Fifth Dynasty. He argues that this particular stone type was only used as flooring material in mortuary temples during the Old Kingdom, whereas during the Third Intermediate Period it was also used for monumental inscriptions (Helck 1970). While the stone type may be a clue for dating the stone so late, the accurate spelling of the names of the early kings – the names of kings Ninetjer and Khasekhemwy are spelled in their Early Dynastic form and not in the corrupted form commonly found in later king lists – suggests it would be from an earlier period (Wilkinson 2000a:24).

The annals inscribed on the Palermo Stone were most likely compiled from archive material stored at the royal residence or major temples. The type of information recorded is of interest. Regarding events during the kings’ reign, the annals are incomplete, few if any ‘political’ events are recorded, and one must assume that there were other annals documenting this type of information. On the other hand, the annual inundation is so assiduously recorded that it has been suggested that this was the main purpose of the stone. Nevertheless, although statistics regarding the Nile were important for fiscal purposes and taxation of agricultural land, the Nile height readings occupy only a small portion of each compartment (Wilkinson 2000a:60-61).

From the reign after Aha (the first king of the First Dynasty), the maximum height of the Nile flood was recorded on a yearly basis. It seems that the Fifth Dynasty author of the annals did not have access to the measurements from Aha’s reign, or perhaps there were no such records from Aha and the reigns before (Clagett 1989:103). From the Fourth Dynasty onwards, the annals start resembling chronicles aimed at recording multiple memorable events in each year of reign (Clagett 1989:53).

The annals of the first three dynasties consist mainly of events, which lend their names to years. Hence, for these dynasties the annals consist largely of a list of names of years, with two events generally being sufficient to identify the year. First, beginning with ‘Following of Horus’ it was either a festival celebrating Horus’ conquest of Egypt or a biannual tour by the king and his officials in Egypt, probably for tax purposes.
Fig. 15. The Nile today at the First Cataract at Aswan. Photo: Terje Oestigaard.
Secondly, religious festivals were often, although not exclusively, documented. Thus, while one of the main objectives of the annals during the three first dynasties was to record events which gave the names of the years, another important documentation included for each year was the Nile height at full flood. The early date for the recordings of the Nile is important because it illustrates the central role of the Nile in the world of the Ancient Egyptians (Clagett 1989:48-49). It is generally believed that the measurements of the maximum height of the Nile flood were recorded in the neighborhood of Memphis or Old Cairo with a Nilometer which had an agreed zero point. The royal cubit was 523mm or 20.6 inches = 7 palms = 28 fingers. There is, however, another shorter cubit of 6 palms and two different spans, one of 3 ½ palms and the other of 3 palms (Clagett 1989:109). Thus, there were two cubits; the cubit of 28 and 24 fingers, and the size of the fingers also varied to some extent, and consequently there are three scales corresponding chronologically to the measurements (Popper 1951:105).

Throughout history, different authors have referred to the various measures and their importance for Egypt. According to Pliny: ‘When the Nile rises reaches twelve cubits, there is hunger; at thirteen there is still scarcity, fourteen bring joy, fifteen security and sixteen abundance and delights or pleasure’. Following Denys (Dionysius) of Tell Mahre in Syria, who visited Egypt in 824 and 832 CE, if the waters were less than 14 cubits, only a small part of Egypt was watered, and no crop was grown and no tax collected. If the waters rose to 15 or 16 cubits, the harvest was medium and the tax likewise. If the waters rose to 17 or 18 cubits, all of Egypt was watered and the harvest and tax were successful. If the volume of water rose to 20 cubits it caused damage and there would be no harvest. As indicated, the actual levels of cubits have varied, and according to ‘Amr at the time of the conquest of Egypt (641 CE); at 12 cubits there was drought; 14 cubits was enough to avoid drought; 16 cubits meant that all cultivable land was flooded and there could even be reserves for the following year; at 18 cubits there was flooding (Popper 1951:79), ‘Abd al-Latif of Baghdad, who visited Egypt around 1200 CE, called 16 cubits ‘water of the sultan’ since the land tax became payable at this volume. At that level half of the land was irrigated, producing enough crops to feed the whole population for a year. If the water was between 16 and 18 cubits, the crops could sustain the population for two years (Popper 1951:80). In general, land tax became mandatory when the Nile rose to 16 cubits. Below that, it could not be exacted. If the lands were not inundated, the peasants were not obliged to pay tax, but the government could open the canals, causing sufficient levels of flooding to make the tax obligatory after all (Popper 1951:81).

Traditionally, June 20 was considered the date on which the Nile reached its lowest yearly level, although there were some variations in the date (Popper 1951:64). The highest level was usually recorded around September 30 every year, as it has been noted ‘in this year the extreme limit of the Nile was’ or ‘the Nile reached’ (Popper 1951:87). Importantly, the variations in water level took place at intervals of unequal length. It could happen two or three times within a decade during most of the period from 641-1890 that either the maximum or minimum water levels were one metre higher or lower than the period average (Popper 1951:174-178). In other words, if 15-16 cubits were normal and preferable, within any given decade one would most probably experience both severe drought (below 14 cubits) and extreme flood (above 18 cubits). Moreover, the daily rise of the river could deviate considerably from the average. Thus, even though the total rise from June to September could fall within average values, in some years it could rise more rapidly than in others and on different days (Popper 1951:230).

Although the Nilometers served as instruments for calculating taxes, they also had a religious purpose. From the Early Dynastic period (Butzer 1976:28) to Graeco-Roman times the Nilometers are found in relation to sanctuaries, particularly Osiris and Isis-Sarapis temples. Isis and Sarapis possessed divine powers and caused the annual floods to come; the goddesses normally stood above the Nile as powers superior to it. The Nilometers could also have functioned as sources, providing the sanctuary with pure water for liturgical purposes (Wild 1981:26). The relation between the Nilometers and water may also include the divinities in other ways. A description on the island of Siheil from the Ptolemaic period describes a seven-year famine that occurred during the reign of Djoser. The king complains that the Nile has not risen for seven years, and he confronts Imhotep, who consulted the sacred writings. He tells him that ‘there is a city in the middle of the Nile called Elephantine, which is the seat from which Ra despatches life to everyone. It is the source of life, the place from which the Nile leaps forth in its flood to impregnate the lands of Egypt’ (fig. 15) (MacQuitty 1976:127). One of the most important Nilometers was the one located at Elephantine, thus linking the flood to the sanctuary, Ra and the Nile. This relation will be elaborated later, which necessitates an introduction to Egyptian religion, the primeval waters, the origin of cosmos, and hence, the Egyptian civilisation. It was from the primeval waters that the flood had its origin, linking the creation of cosmos to the maintenance of Maat and civilisation by controlling the inundation.

The Ancient Egyptian Religion and Maat

Approaching religion in Egypt is a challenge because there was no word for ‘religion’ in the Ancient Egyptian language (Assmann 2001:1). Nevertheless, ‘religion’ as a term will be used since it denotes a web of worldviews, cosmologies, beliefs and rituals. However, ‘Egyptian religion does not consist of one connected logical system but is composed of a series of cults which have been roughly synthesized to fit, more or less harmoniously, into a general system’ (Hornblower 1937a:153). The Pyramid Texts highlight the Egyptian ‘tendency to assemble an accumulated mass of material without synthesis. Contradictions are not solved but presented side by side’ (Smith 1962:61). Since the discovery of the first texts, Egyptologists have debated the key question of
whether the religion of the Ancient Egyptians was monotheistic or polytheistic. One can argue that it was both and that neither of the concepts capture the true nature of the religion (Beth 1916:183). The dilemma was put precisely as early as 1880:

‘Throughout the whole range of [ancient] Egyptian literature, no facts appear to be more certainly proved than these: (1) that the doctrine of one God and that of many gods were taught by the same men; (2) that no inconsistency between the two doctrines was thought of. Nothing, of course, can be more absurd if the Egyptians attached the same meaning to the word God that we do. But there may perhaps be a sense of the word which admits of its use for many as well as for one’ (Le Page Renouf 1880:92).

On the one hand, the Egyptian word which is translated as ‘god’ has the form of nutar in earlier translations whereas present transcriptions give it the form nṯr. The Coptic language shows that at least for the latest phase of Egyptian religion, nṯr = noute, could be used in a monotheistic sense, and thus becomes synonymous with theos. Hence, the translation of nṯr as ‘god’ is justified although it had a variety of meanings in Ancient Egypt (Hornung 1982:42). On the other hand, the intellectual foundation of Egyptian polytheism – insofar as it exists – is that the divine must be differentiated. Unity consists of diversity. Egypt is the unification of the ‘Two Lands’ or ‘Upper and Lower Egypt’; space is ‘sky and earth’, totality is ‘the existent and the non-existent’, etc. (Hornung 1982:176). In polytheistic religions it is common for each god to have a multiplicity of names, and Egypt is no exception (Hornung 1982:86). Apart from syncretism in general, gods could be linked to each other in at least three ways: 1) kinship – a god could be married to another, son or daughter, etc., 2) a god (or king) could be an ‘image’ or ‘manifestation’ of another’s ba, and 3) gods could be unified, and such unions mainly relate to Ra and Osiris (Hornung 1982:93).

There were three crucial fundaments to the Egyptian ideology; firstly, there was continuity with the past; secondly, there was a mystical territorial unity over geographical and political subdivisions, and finally, there was stability and prosperity through the wise and pious government of the kings (Kemp 2006:61). Continuity is made explicit through the lists of deceased kings and ‘the government of the kings (Kemp 2006:61). Consequently, the original Creation was constantly repeated and interwoven into religious practice, and a fundamental source for existence was the non-existent and the yearly inundation.

Religion in Egypt was cosmotheistic (Assmann 2005:407) and throughout the Egyptian landscape there is the mythologically non-existent, especially in the desert (Hornung 1982:178), and hence, the whole environment and landscape is understood through mythology. ‘For the Egyptians the entire extent of the existent, both in space and time, is embedded in the limitless expanses of the non-existent. The non-existent does not even stop short at the boundaries of the existent, but penetrates all of creation’ (Hornung 1982:179). The non-existent was present every day and at all times. It was not only an intellectual abstraction or imaginary concept, but it structured society and religious practice as human responses to the divine presence and transcendence (Assmann 2001:7). The state of the non-existent before the Creation contained many negative and hostile elements, but there were also two positive and regenerative elements that constituted the state of non-existence: the limitless water or the primeval flood (Nun in Egypt), and the complete darkness. ‘I was born in the Abyss before the sky existed, before the earth existed, before that which was to be made firm existed, before turmoil existed, before that fear which arose on account of the Eye of Horus existed’ [Pyr. 1040].

Hence, the Egyptians encountered and faced the non-existent wherever they went. If they were digging foundations for a house, the groundwater that rose in the pit would remind them of the state before Creation, and they poured sand to make a new ‘primeval hill’ so that existence might emerge from the primeval water. The yearly inundation brought the timeless non-existent back into the world of creation where, according to a Twenty-Fifth Dynasty text, ‘the earth is Nun’, the primeval waters (Hornung 1982:179). ‘In the natural cycle of the year the fertile land of the Nile Valley is also submerged in the primeval flood in the form of the inundation of the Nile, which “forms (msy) that which exists”, bringing to it new strength and fertility’ (Hornung 1982:181).

The sun god ruled the whole universe from the sky and the Duat, the netherworld. In the Duat the sun god underwent a transition whereby he died and was reborn the next day (O’Connor & Silverman 1995:xix). The positive aspect of the non-existent is the potential for fertility, renewal and rejuvenation. The sun dips into the primeval ocean daily. As it re-emerges from Nun it is purified and vivified. It was truly a rebirth giving life, and the world attained the perfection it had during the creation. ‘Only through the non-existent does creation become possible, so that the gods and kings are especially dependent on it for the perpetual renewal of their work of creation and for the avoidance of lifeless finality’, Hornung argues, ‘In the Egyptian view the existent is in need of constant regeneration from the depths of the non-
existing; only then can it maintain its living existence’ (Hornung 1982:182).

Non-existent and disorder are hence at the very foundation of cosmos. ‘Chaos is, in Egyptian thought, latent cosmos – hidden in the night and submerged in the inundation waters: it is potential cosmos’ (Finnestad 1985:13). However, the forces of chaos and disorder must be controlled and tamed, which is the task of gods and people together. Through rituals they had to ensure that disorder did not overpower justice and order. This is what is understood as maintaining Maat (Hornung 1982:212-213). Although Maat is personified as a goddess, she is the underlying order structuring the world and the cosmos. It is the perfect state of everything, which human activities should be directed towards, and this is in accordance and in harmony with the creator god’s intention. Maat represented the pristine state of the world (Hornung 1982:213), formed by the gods of creation even before any of the other gods and goddesses were born. However, this state of Maat was believed to have been destroyed in the time of Osiris when he was murdered by Seth. Ptahhotep teaches (Assmann 2005:380):

‘Great is maat, lasting and effective, it has not been disturbed since the time of Osiris. He who transgresses its law is punished, but this seems like something distant to greedy’

te Velde has also argued that Seth was not just evil, but also a trickster. In the Egyptian language the opposite of Maat was confusion, and in Chapter 39 of the Book of the Dead Seth bragged that ‘I am Seth the originator of confusion who thunders in the horizon of heaven’ (te Velde 1968:37-38). Maintaining Maat was the pharaoh’s responsibility. Amenhotep III (ca. 1390-1353 BCE) strove ‘to make the country flourish as in primeval times by means of designs of Maat’ (Bleeker 1929:33, op. cit. Frankfort 1948:51), which illustrates the structuring role of Maat. Humans were responsible for maintaining the original creation as it had been handed to them by the gods of creation. This cosmic cooperation explains the mixture of free will and predestination as justice in accordance and in harmony with the creator god’s intention. Maat represented the pristine state of the world (Hornung 1982:213), formed by the gods of creation even before any of the other gods and goddesses were born. However, this state of Maat was believed to have been destroyed in the time of Osiris when he was murdered by Seth. Ptahhotep teaches (Assmann 2005:380):

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As Finnestad says, ‘The creation texts do not merely relate a creation story: they represent creation’ (Finnestad 1985:122). The problem of creation or origin was related to the actuality of human existence since the universe humans lived in had continued in an unchanged form since creation (Frankfort 1961:20). Creation did not happen ex nihilo, because before creation of the ‘first time’ there existed the amorphous ‘Abyss’ or ‘Deep’, known as Nun. Nun is described as the primitive water in which the creator god existed as a formless being. After the creator god created himself, he created a mound of land emerging from the waters (Clagett 1989:264-265).

‘The waters surrounding the Primeval Hill were, naturally, the waters of chaos; these personified in the god Nun, were still supposed to surround the earth, and inexhaustible reserve of latent life and fertility. And the subsoil water, as well as the Nile, was thought to flow out from Nun. Since the Primeval Hill was the place of sunrise and creation, and hence the place for rebirth and resurrection, the waters of Nun which surrounded it became those waters of death which, in the imagination of many people, separate the world of the living from the world of the dead’ (Frankfort 1948:154).

According to beliefs, in order to start creation the sun had emerged from the primordial ocean, Nun. Although Ptah was claimed to be the creator of the universe, he could not proceed on his own as he was an earthly being. The Ennead or the Nine Gods of Heliopolis consisted of the creator sun Atum, Shu (air) and Tefnut (moisture). The children of this couple were Geb (earth) and Nut (sky), and their children were Osiris and Isis, Seth and

The Primeval Waters – The Creation of Cosmos

In theory, Egypt was where the Egyptians lived. In practice it was where the Nile was (Verner 2003:23). The Egyptian cosmos was Pharaonic culture, and ‘it should be emphasised that the cosmos created is not cosmos in the sense of “universe”, nor in the sense of “virgin” nature. The cosmos which was created for Horus is the place that is cultivated by man, the irrigation culture…a place of Egyptian civilisation’ (Finnestad 1985:51). The Egyptians had no word for cosmos, but it may denote ‘man’s world’ or the place of man’s habitation. Chaos, on the other hand, may denote the ontological stage preceding cosmos. The landscape itself is not cosmos but chaos; it is the inundated and uncultivated soil. The temple is cosmos in the state of chaos. Chaos is characterised by two factors: it is a dark and aquatic landscape. The presence of water precedes the existence of the earth and it is through the inundation of the Nile that the earth becomes fertilised. When it is closed, the temple sanctuary is a nocturnal landscape representing the centre of the dark, watery cosmos (Finnestad 1985:11-12).

History is the period of time when the office of kingship is ruled by the pharaohs as opposed to gods or semi-gods (Assmann 2002:39). The Egyptian sign of ‘government’ is the pharaoh holding the lash in his hand. This is identified with the ‘regulation of waters’ (Weber 1968:16). Thus, the Pharaonic government was intimately connected to the procurement of water and creating Maat, which the Egyptian religion through ritual and magic tried to preserve from the ever-present and threatening dangers of the still-existing waters of Nun lying on the edges of the world (Clagett 1992:264-265).

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Nephthys. The first five gods represent cosmology and the creation; the latter four established a bridge between nature and humans through kingship (Frankfort 1948:182).

Ptah was equated with the Eight who served at Hermopolis as a conceptualisation of cosmos. Hence, the Eight existed before the sun as they brought him forth from the primeval waters. They were known as ‘the fathers and mothers who made light’ and even ‘the waters that made the light’. The creation of the universe or the rising of Order from Chaos could only be induced by the sun through the waters. The sun created the Primeval Hill as an island of dry land in the primeval waters, which became the centre of the universe. The first land which emerged from Chaos was believed to possess vital powers, and each temple and funerary tomb was believed to stand on this hill. The hieroglyph for ‘hill’ is the shape of a step pyramid (Frankfort 1948:151-153). The pyramids were built on the edge of the course of the annual flood. Hence, the land on which the pyramids were built was the first to emerge from the flood when the waters receded, representing the Primeval Hill. In the Pyramid Texts (Pyr. 1652-53) the sun god Atum, and not Ptah, is described as the Creator. He was standing on the Primeval Hill in the middle of the water of Chaos, creating from himself the first pair of gods – Shu and Tefnut – and vitalising them by transferring his Ka to them (Frankfort 1948:66). Similarly, Geb is described as ‘for you are the essence of all the Gods. Fetch them to yourself, take them, nourish them, nourish [Osiris] the King’ [Pyr. 1623] (Frankfort 1948:67).

Thus, the cosmogonical system is based upon two of Egypt’s fundamental and pervading natural features, ‘the overwhelming importance of the Nile and its annual flooding and the ever-present sun as a continuing source of light and heat. The first surely accounts for both the insistence on the origin of everything in the primitive waters of Nun and the emergence of the mound or island of creation. The second stimulated, in all likelihood, the appearance of the sun as either the creator god or his principal creature in Egyptian cosmogonic schemes’ (Clagett 1989:265-266). When the annual flood subsided and land emerged, plant shoots were evident, and the rising of the sun after a cold night, cosmogonic processes that were repeated day after day, year after year, over and over, must have inspired Egyptian cosmologists (Clagett 1989:266). The Nile flood was the most impressive act of fertilisation known to the Egyptians; it is viewed as the prototype of all later inundations when the earth emerged from the ‘Lake’ (Frankfort 1948:177).

Finally, if the world and cosmos originated from chaos, it will eventually return to chaos and the abyss. In the Book of the Dead (Spell 175) there is a description of what will happen at the end of time. Atum will revert to his primitive form as a serpent and the world will return to its state of undifferentiated chaos. Atum tells Osiris that only the two of them will remain when he destroys the creation and returns to snake forms: ‘[I will] destroy all that I have made; the earth shall return to the Abyss, to the surging flood, as in its original state. But I will remain with Osiris, I will transform myself into something else, namely a serpent, without men knowing or the gods seeing’.

This was the inevitable end, but it was also the continuous cosmic threat before the end of time. Hence, it was the pharaoh’s duty to ensure stability and harmony on earth and in cosmos in order to guarantee the welfare and prosperity of humans and gods for as long as possible. This was the cosmic stability and result of rituals which ensured the upholding of Maat, the core of Egyptian civilisation. The realisation of Maat included pacifying or satisfying the divine realm as well as guaranteeing justice in the human realm (Assmann 2001:5). Everything was structured around the cosmic waters and the process of creating cosmos out of chaos in a desert environment.

Ragnhild Finnestad (1985) has emphasised the water’s cosmogonic powers in her Image of the World and Symbol of the Creator. On the Cosmological and Iconological Values of the Temple of Edfu. Although this temple is late (third century BCE), she reveals cosmogonic structures which have parallels in the Old Kingdom as evident in the Pyramid Texts. The gods constituted the cosmos and were not living separately or independently from it (Finnestad 1985:93). The cosmos was surrounded by water. Below was the water of chaos and above was the water of cosmos. It was on these waters that the sun sailed in his sun boat with the priests as crew. During the night he sailed below and during the day he sailed above (Finnestad 1985:103). ‘The pre-elements of cosmos, the inundation and darkness are, in the theogonetic perspective, the ultimate origin of the gods’ (Finnestad 1985:89). The transition from chaos to cosmos was not only a peaceful one, but often involved a war in which cosmos was victorious over chaos. The enemy was frequently described as the destructive floods threatening the earth and humans. The myths about Horus and Seth must be seen in this light. The enemy, in the form of the destructive forces of the barren desert, was represented by the areas which were not inundated and consequently could not be transformed into fertile fields. The red area (dirt) encroached upon the fertile, black land (kmt), which was Egypt. Seth was the god of the red area (Finnestad 1985:15).

The creation started with an inundation; the water started violently and ended peacefully. The neutral characteristic of water was as a sheet of water. The first description of water or the flood was the swirling flood. It was followed by hostile and violent descriptions such as Water of fighting and Water of combat. Subsequently the waters were described in pacified and peaceful terms as Water of peace and Stabilised water. During this cosmogonic event the waters of the flood went through several states. The use of the word ‘peace’ may indicate that in a decisive metamorphosis of the flood, cosmos was created out of chaos. While the waters of the Nile flood always remain water, they go through several states and progressive modifications. Finally, from being an element in opposition to cosmos, it is transformed into an element capable of creating cosmos.
Fig. 16. Floating reeds in the Nile at Aswan. Photo: Terje Oestigaard.
The cosmic forces won the war between the cosmological stages (Finnestad 1985:42-43). Moreover, ‘The aspects of the water denoted by the names correspond to the actual phases of the inundation’ (Finnestad 1985:43). Thus, there are different names for water and its capacities; the sheet of water, troubled water, water in a subdued state, being made into canals, but also destructive aspects and the function of being the origin of cosmos:

‘...the chaos-water of this cosmogony is the inundation, not some unspecified, vague primeval water, like that of Genesis I for instance, nor the water of the ocean. The water of the Nile (believed to have its mythical place of origin in the underworld) annually covers that area of the landscape which will, when the flood recedes, emerge as land in cosmos, the place of habitation and the fertile earth that can be tilled. Only where these waters have been can cosmos come into being; it is latently existent in the inundation – its pre-stage and source of origin. The area outside the chaos-cosmos-place is desert: non-world, where no creation can take place’ (Finnestad 1985:46).

The arrival of the floating reed was very important and has deep cosmic meaning (fig. 16). The reed was the first stable element in the water, and it was located at the edge of the water. In other words, it limited the inundation; beyond it lay the desert. Then the underworld was coming-into-being and its sky was outspanned. These events, which took place during the night, established the ultimate boundaries of cosmos. From the very top to the bottom, the cosmic room lay in darkness (Finnestad 1985:43-44). The first element in the landscape which appeared at the break of dawn were the mounds. They emerged from the waters as solid ground, forming the basis of cosmos on which houses and settlements were built. Cosmos was created out of the waters of Chaos. Each year the land would dissolve in water and then reappear. The Egyptians believed that new land rose from the water and not that land appeared because the water subsided (Aldred 1984:71). From Chaos the primeval mound arose from which the work of creation began at the beginning of time. ‘This miracle was repeated every year when the waters that were under the earth welled up and reproduced the primordial Nun or Chaos from which the new land in due course emerged’ (Aldred 1984:72). The next creative operation was the opening of the canal, a cosmogonic event with cosmic consequences since the channelling of the inundation was the final triumph over chaos (Finnestad 1985:44, see the discussion of the Scorpion macehead later). The geographical places were identified and unified with the mythological landscape; first the reed, then the underworld of place, followed by the mounds and finally the canals (Finnestad 1985:47). Thus, Egypt as a land was the area covered by the Nile at the height of the annual flood.

The sky was also associated with water, and both the Field of Reeds and the Field of Offering could be flooded, and the king also excavated a canal in the Fields of Reeds. There are in particular two images in the Pyramid Texts which describe the sky in water terminology. The most common is ‘Fresh Water’ and the less common is to denote the sky as a ‘Basin’. Thus, the early image of heaven or the sky was as a body of water above the earth, which consisted of shores, marshland, canals and lakes, and perhaps even bordered by desert (Allen 1989:7-9). Moreover, the underworld also consisted of water presenting the cosmology as a ‘world above and below the surface of an infinite ocean within which it floats, with the earth as a flat plain of land midway between the upper and lower surfaces of this ocean’ (Allen 1989:13). The sky itself does not move, but the inhabitants – the sun and the stars – move, crossing by day and night (Allen 1989:13).

‘The king, like the sun and stars, is said to be conceived and given birth by the sky. The Abyss is also described as the king’s birthplace, and the nether sky as a mother who conceives him’ (Allen 1989:14). Nut is identified as the sky and as the mother who gives birth to the king, the sun and the stars. She is described as water and in particular as the location of the ‘great floodwaters’. Nut is also identified with the tomb and sarcophagus in which the deceased is buried. Finally, Nut is also described as the cosmic birthplace and ‘the place where the gods are born’ (Allen 1989:15-17). The Duat, which is closely associated with Osiris, is a place one can traverse by boat. The Duat was believed to be located in the underworld, but in Seti’s I cenotaph it is presented as being within the body of Nut (Allen 1989:22-24).

Changing Climates and Cosmological Consequences

Returning to the Palermo Stone and the environment, in the period between 2950-2500 BCE the average rise of the Nile in Old Cairo would have been around four cubits (approximately two metres, see appendix 2). Although there are uncertainties with regards to the actual recordings, the zero points and where they were measured, it is reasonable to assume that the relative difference between the measurements must have been considered relevant to society and thus giving us the relative variations of the flood heights. The recorded height of 8 cubits and 3 fingers during the reign of Horus Den of the First Dynasty must have flooded all the western and eastern nomes (geographical provinces) in the Delta. If this was a devastatingly high flood, it is intriguing that only five years later the recorded height is 2 cubits, which must have been devastatingly low. Thus, there were always huge fluctuations: the lowest level was recorded in the Second Dynasty when the flood was reported to rise only to the height of 1 cubit (see appendix 2).

These huge variations must have elicited ritual responses, problems and solutions, since the actual flood came from the primeval waters. The Egyptians may have considered ‘rain’ as an inferior and unreliable source of water in comparison with the river Nile (Bell 1971:16), but the river itself was, although always flowing and flooding, a very unpredictable body of water. In other words, the
chaos water had to be turned into cosmos water; the inundation started as chaos and was transformed into cosmos, culture, agriculture and civilisation. Following Finnestad, ‘there is a correspondence between the cosmogonic development and the actual topographical conditions during the inundation’ (Finnestad 1985:44). Consequently it is necessary to look at the various water worlds and Egypt’s changing environment in order to gain a better insight into the role of water in the rise and constitution of Egyptian civilisation.

As the underlying structure of the world, the cosmos and the state of harmony as intended by the gods, Maat had an earthly counterpart. Harmony in the Ancient Egyptian world was to a large extent the outcome of the flood. Too much or too little water during the annual inundation had devastating consequences resulting in famines and, in worst case, death. The harmony of society and cosmos was not in equilibrium. This meant that the right inundation at the right time were part of a cosmological process, of Maat and of the religion. One could even argue that the visible and material expressions of Maat on earth would have been manifested in the flood and its consequences such as successful harvest because the main parameter for wealth and health were the direct results of the flood. As will be discussed later, it was the pharaoh’s duty to ensure and control the annual inundation and the transformation of the deceased king into the forthcoming inundation and Osiris was the main task of the forthcoming pharaoh as Horus.

Changing water worlds would thus have been a threat to Maat, and it was the pharaoh’s ritual and religious obligation to maintain and tame the Nile for the prosperity of his people. In times of climate change when there was less or no annual rainfall, the civilisation became totally dependent upon the annual flood. In this context rituals were a means of controlling nature and counteracting the decreasing inundations, and this would have been one of the – or perhaps the main task of the pharaoh’s religious obligations in society and cosmos. Climate change, less floods in time and space and greater fluctuations would have, from this perspective, been seen as disturbances of Maat. This would most likely have had direct consequences for the people of Egypt and their perceptions of how the pharaoh conducted his ritual obligations, or which threats the society faced and therefore necessitated the pharaoh as the ritual sovereign whose task was to tame and control these unpredictable forces. If these premises are correct, changes in the water world as a result of climate change would also have caused changes in the religion and mythology.
Seth in History and Mythology

‘In hot countries the sun is generally regarded as an evil, and in cold as a beneficent being’ (Lubbock 1870:315). In East Africa the sky god who sends rain is the supreme god figure (Wainwright 1938:2), but in Egypt it was the sun. Strangely enough, Seligman — who conducted intensive research in Sudan among rainmakers along the Nile — did not find any sun worship there (Seligman 1934:12). Thus, the Egyptian context seems at the outset to represent something different and extraordinary. The environment is drier and, from a rainmaking perspective, one would not expect sun worship in a desert, but rather an extreme focus on the life-giving waters in the form of the river or rain, and in particular the Nile. Still, ‘there is sufficient to show that the fertility duties of the pharaohs were double ones, originally concerning the rain but later the Nile’ (Wainwright 1938:75). One must therefore approach the processes and transformations of the life-giving waters in their various forms, but first and foremost consider the change from a rain ideology to a river ideology. The Narmer palette represents the Upper Egyptian victory over Lower Egypt under the patronage of Horus the Falcon. This also represents the replacement of the Seth ideology with the Horus mythology as a sun ideology. As will be shown, this is also when the change from a rainmaking religion to a river religion took place. Hence, the rise of the Ancient Egyptian civilisation went hand in hand with the constitution of a new religion in a new water world which coincided with the end of the NWP.

Seth was a traditional sky fertility god because ‘he was a god of rain, storm, lightning, thunder, and earthquakes; meteorites and thunder-bolts symbolised his strength, his power to open the earth and to fertilise it, and also his power of destruction’ (fig. 17) (Meyerowitz 1960:75). Rain itself or the Sky from which it originates as the Giver of Life is often developed into a god, and the sky gods are often the supreme ones (Wainwright 1938:1-2). The rain god Seth fits very well into this scheme; in rainmaking ideologies there is always an interplay between rain and the sun since it is their combination that gives life. Thus, Horus as a Sky god would have had the role of sun god in relation to the rain god Seth. Contrary to what one might have expected, with the change from a rain-ideology to a river-ideology in Egypt, the river god remained celestial instead of becoming terrestrial: the former sun god Horus incorporated all of the river’s ideological qualities and capacities in the form of the sun. Hence, the river god was visualised in the old rainmaking cosmology as the sun, but the life-giving waters had changed from rain to the river Nile. The images of the divine continued, but their contents and cosmic functions had been transformed (fig. 18). It is in this light that one must see the development of the Osiris mythology.

In Pharaonic times Naqada was an important centre for the cult of Seth. Seth was closely associated with the king when the state formation took place; he was a local god at Naqada. The Seth animal is first found on the Scorpion macehead, symbolising either a provincial deity or an aspect of royal power (Wilkinson 1999:294). ‘The association between a major early archaeological site (Naqada) and the cult of one of the gods most closely associated with kingship (Seth) is encouragingly neat’ (Kemp 2006:81). Hierakonpolis, a second early site, also contains the essence of a similar association but this time with Horus, and it is much more complex (Kemp 2006:81). Moreover, Seth was a royal and divine titular in the earliest dynasties together with Horus. ‘She who sees Horus and Seth’ is a queen’s title in the First Dynasty, according to a seal found by Petrie (Royal Tombs II, Pl. 27, nos. 96, 128, 129) and the Second Dynasty Pharaoh Khasekhemwy was addressed ‘Horus and Seth: the two powers have arisen; the two lords are at peace in him’ (Khasekhemwy-nebwy-hetep-imef) (Wilkinson 1999:202). ‘References in the Pyramid Texts to the incorporation of Horus and Seth in the king [is] a fact which doubtless represent an historical theological standpoint’ (Griffiths 1960:121), and Horus and Seth also appear as representatives of Lower and Upper Egypt respectively on fragments of a statuette of Kephren from the Fourth Dynasty (Gardiner 1950).

According to Sethe, Egypt was unified twice in Predynastic times, and the conflict between Seth and Horus was political. The first unified kingdom was conceived under Osiris, the god of Busiris. Osiris was, following Sethe, originally a king, but he was deified and became the god of the nome, Anjdjet. Upper Egypt rebelled under the patronage of Seth. Lower Egypt crushed the rebellion and formed a second united kingdom with Heliopolis as its capital. As Griffiths has noted, the problem with this theory is, ‘If the conflict of Horus and Seth represents a Predynastic war, it will have to be dated, it seems, to the era previous to the Predynastic union, since the two deities were apparently associated in an Upper Egyptian alliance in the period before the union under Menes’ (Griffiths 1960:138). Emery has argued, on the other hand, that Seth was the original god of Egypt and remained so even though the dynamic people who invaded Egypt were worshippers of Horus. Thus, the struggle between Seth and Horus reflects a religious conflict irrespective of whether there was an invasion or not (Emery 1961:119).

‘Egypt’ (Kmt) literally means ‘black land’, probably referring to the black soil of the alluvial plain of the Nile in contrast to the ‘red land’ of sand and rocks in the desert. This division goes mythologically back to the partitioning between the gods Horus and Seth where the whole of the Black Land was given to Horus and the Red

Chapter 3:
Rain and River – Seth, Horus and Osiris
Land to Seth (Kemp 2006:21). Hence, the presence of Seth constituted parts of the Egyptian worldview throughout history, and Seth played a constitutive part of the Egyptian society from the rise and unification of the civilisation. However, the Narmer palette shows the unification of Upper and Lower Egypt under the patronage of Horus where Upper Egypt was the dominant part. Although Seth’s political role in the formation and unification of Egypt is uncertain, he undoubtedly played an important religious role.

Originally, Seth was a rain and storm god – ‘a god of the blessed yet dangerous storms’ (Bell 1971:24). This fits with NWP, but as the rain became rarer with the decline of the NWP, everything from the desert became sinister to the peasants, and Seth eventually became the personification of evil (Bell 1971:24). There is a variation in the relation between Horus, Seth, and Osiris, which may be seen as four stages in the development of this relation: Firstly, in certain spells Horus and Seth are identified with the king, and Osiris who is hardly mentioned, has no royal associations. Secondly, in other spells Horus and Seth are closely connected with the king, but not identified as such, and Osiris has no associations to the king. Thirdly, the deceased king is closely associated and identified with Osiris. Horus and Seth are described as co-operating with the king. Finally, the deceased king is identified with Osiris and Seth is the enemy and slayer of the Osiris-King (Griffiths 1960:23-26). Following Griffiths, ‘It is quite possible that this inconsistency is not due to any mythological fusion; it may rather reflect a change in the political position of Seth’ (Griffiths 1960:16).

Although Osiris is not attested by name before the Fifth Dynasty, the pairing of Horus and Seth which is crucial in the later Osiris myth, is found from the middle of the First Dynasty, ‘antedating the first attestations of Osiris by six centuries or more’ (Quirke 1992:61). One of the emblems associated with Osiris, the Djed pillar, was found as two ivory objects in the grave goods in a tomb at Helwan dated to the First Dynasty (Saad 1947:27). During the late Second Dynasty, Seth gained a particular prominence, temporarily replacing and rejoining Horus, and a stone slab from Helwan dated to late the Second Dynasty, which belonged to a royal priest, has the inscription calling him ‘Seth is beautiful’ (Wilkinson 1999:295). Thus, Seth was venerated and seen as the most important god, which provides the background and forms the point of departure for understanding the conflict with Horus.

Seth has two contrasting roles, one of which is positive. In the solar myth he fought together with the sun god. Standing at the prow of the sun barque he pierced the dragon Apopis with his mighty spear.
Fig. 18. Horus the Falcon. From the Temple of Edfu. Photo: Terje Oestigaard.
The dragon, who had swallowed a huge amount of water, gushed forth all the water from his body when he was pierced. Ra used death in the fight against the absolute destruction, personified by Apopis (Assmann 2005:70). Seth’s role was also related to water rituals. Osiris or Osiris King is carried in the water, and Seth’s role is that of a ship in the funerary voyage (Griffiths 1960:15). On the other hand, Seth is perceived as evil. ‘As the rains grew rarer and the Egyptians came to rely more and more on the Nile, which they were in a process of taming, so Seth slipped from his ancient high estate. He, his rain and fertility rites, became a nuisance and an offence to his people until by the end he had become the personification of all evil, the very Devil himself’ (Wainwright 1963:19).

The Horus-Seth Feud

In the original Horus-Seth feud the gods were brothers, which is similar to the Osiris-Seth feud where Seth is Osiris’ brother. In the former myth and feud Horus and Seth are equal in power whereas in the latter Horus is initially inferior as a child, but in both myths he turns out superior. ‘Unlike Horus, Seth is not given a double parentage. He is the brother of Osiris and the son of Geb and Nut… he is sometimes called the brother of Horus, and this is the salient discrepancy’ (Griffiths 1960:16). The child Horus in the Osiris myth is a different god from the strong Horus who violates Seth, and it is plausible that the Hathor-cow as depicted on the Narmer palette was the mother of the Horus-falcon, but when the myth became Osirianised the genealogy was adjusted and Isis became his mother. Thus, it seems that Horus did not originally belong to the Osiris myth (Griffiths 1960:13-14).

In the Pyramid Texts the quarrell between Horus and Seth without references to Osiris is more frequent in the earlier pyramids of Wenis and Teti in the Fifth Dynasty than in those later ones of Pepi I, Merenre and Pepi II in the Sixth Dynasty, but the difference is not great. In those cases where Seth is mentioned by name, he is more frequently related to Horus, but in the cases in which he is coupled with Osiris, he is more hostile. In the two earlier pyramids there are only a few allusions to the Seth-Osiris feud where Seth is Osiris’ enemy, but it becomes fairly frequent in the three later pyramids (Griffiths 1960:17-19). The myth of the conflict between Horus and Seth was the earliest; later it was absorbed by the Osirian myth so that the story became more complex. The fundamental change is that the deceased king was identified with Osiris, an idea which seems to have coexisted with the notion that the living king was Horus (Griffiths 1960:20). However, the Osiris myth seems never to have been a coherent whole, but rather served as a source of allusions for other religious texts (Assmann 2005:23). ‘When the deceased King was first identified with Osiris, the work of the living King or Horus gradually caused, by means of spells and offering-rites, the fusion of the Horus myth and the Osiris myth. Since Horus, now as son of the deceased king, becomes the son of Osiris, henceforth the enemies of Horus are to be the enemies of Osiris; the stolen eye, snatched back from Seth, is now presented to Osiris’ (Griffiths 1960:21).

In the Pyramid Texts there is actually only one reference that Horus killed Seth in revenge in the Osiris mythology; ‘He has smitten for you him who smote you as [an ox], he has slain for you him who slew you as a wild bull, he has bound for you who bound you’ [Pyr. 1977]. Similarly, it is also difficult to find a definite reference to the murder of Osiris. However, the vague allusions indicate that the murder of Osiris was a fundamental part of the myth, but there are also indications that he was not entirely destroyed which relate to his revivification. Moreover, Seth is also believed to have drowned Osiris. Seth’s penalty was to carry Osiris in what apparently is a water ritual (Griffiths 1960:5-11): ‘Horus has driven him off for you, for you are greater than he; he swims bearing you, that your strength is greater than his, so that they cannot thwart you’ [Pyr. 588], which is followed by ‘Horus comes and recognizes his father in you, you being young in your name of “Fresh Water”; Horus has split open your mouth for you’ [Pyr. 589].

Thus, it seems Seth was perceived as a benevolent god who, after having repented for the evil wrought by him, was co-operating with Horus for the benefit of the deceased king (see fig. 19). Seth’s carrying role is mainly that of a ship in a funerary voyage (Griffiths 1960:12-15). Traditionally, Seth also has a ritual role in the “baptism of the Pharaoh” (Gardiner 1950), but he is not widely known for his sympathetic, cosmogonic and constructive aspects, rather the contrary.

Seth had three meanings: instigator of confusion, deserter and drunkard (te Velde 1967:7). These antisocial and dangerous qualities characterise Seth as a god. His followers were allegedly tortured and killed, and their blood drunk: ‘Seize them, remove their heads, cut of their limbs, disembowel them, cut out their hearts, drink of their blood’ [Pyr. 1286]. Seth was homosexual (in relation to Horus), he was a murderer (killing Osiris), and he was chucker-out. Seth was also perceived as a foreign god or lord of foreign countries. Seth revealed himself in the form of Ash, the chief god of the Libyans, Baal who was the chief god of the Western Semites, and Teshub, who was the chief god of the Hittites (te Velde 1967:109). All these gods were rain-, storm- or thunder-gods, which implies that the Egyptians were familiar with rain gods, which no longer existed in Egypt, and therefore Seth was repelled. He was the lord of foreign countries where he gave rain and water, but not in Egypt, which must have been seen as a heinous act not worthy of a god or lord of foreign countries. Seth revealed himself in the form of Ash, the chief god of the Libyans, Baal who was the chief god of the Western Semites, and Teshub, who was the chief god of the Hittites (te Velde 1967:109). All these gods were rain-, storm- or thunder-gods, which implies that the Egyptians were familiar with rain gods, which no longer existed in Egypt, and therefore Seth was repelled. He was the lord of foreign countries where he gave rain and water, but not in Egypt, which must have been seen as a heinous act not worthy of a mighty Egyptian god, and consequently, over the course of history he was seen as a personification of evil and the Devil himself. However, Seth once was a fertility god who particularly had great sexual strength through, for example, rain, which he controlled by promoting the growth of plants (te Velde 1967:54). He lost these powers, which were transferred to and transformed by Horus, which is dramatically expressed in the mythology of the original feud between Seth and Horus the Elder.
Seth’s Testicles and Horus’ Eye

Horus’ Eye plays a central role in both feuds. As an oppositional pair ‘wet’ and ‘dry’ signify life and death: liquids are alive and dryness represents dying. When there is a finite and limited amount of goods like health and wealth, one person’s health, wealth and gain can only come at the expense of others. One drinks ‘health’, which means that somebody else lacks the vital source (Dundes 1981:266-267). ‘In symbolic terms, a pair of eyes may be equivalent to breasts or testicles. A single eye may be the phallus (especially the glans), the vulva, or occasionally the anus. The fullness of life as exemplified by such fluids as mother’s milk or semen can thus be symbolised by the eye. Accordingly, threats to one’s supply of such precious fluids can appropriately be manifested by the eye or eyes of others’ (Dundes 1981:267).

What aspect of Ra or Horus’ Eye does Seth want to rob or injure? The sun god is always victorious, but wounded during battle (Borghouts 1973:116). It seems that the belief in Horus’ Eye relates to or is the origin of the later belief known as the evil eye. The belief in the evil eye is the belief that it is possible to project harm by looking at another’s property or person (Maloney 1976:i). The belief originated in the Near East in relation with the development of complex peasant-urban cultures and spread in all directions (Maloney 1976:xi). ‘The evil eye is a fairly consistent and uniform folk belief complex based upon the idea that an individual, male or female,
has the power, voluntarily or involuntarily, to cause harm on another individual or property merely by looking at or praising that person or property. The harm may consist of illness, or even death or destruction’ (Dundes 1981:258). Although the belief in the evil eye is associated with sorcery and witchcraft, its effects are different, and often include too little rain, destroyed crops, famines and accidents (Thomsen 1992:22), and indeed, ‘the most common effect of the evil eye is a drying up process’ (Dundes 1981:274). In Sumerian mythology, the evil eye took away the waters from the heavens and the storms sent no rain (Dundes 1981:275). In Spell 108 in the Book of the Dead one of the aspects to be feared from the demon of chaos was his malevolent eye. In P. Louvre 3239, a demon is described as follows: ‘He is like Seth, the disturber, / the snake, the bad worm, the water in whose mouth / is fire, the one who comes with a furious face, / his eyes marked(?) with deceit, in order to do / great mischief...’ (Borghouts 1973:143). Seth’s eyes seem to be most feared, but it is not in the usual sense of a permanent dread because Seth’s eyes are bent upon evil among the gods rather than humans (Borghouts 1973:143).

Importantly, the eye metaphors are often expressed sexually in terms of phalloses: ‘If a healthy eye, that is, a phallus, can spit or ejaculate, then an unhealthy one cannot. Given this logic, it is not impossible to imagine that a larger, more powerful eye may rob a given eye of its ability to produce liquid, or of the precious liquid itself’ (Dundes 1981:282). Turning to the Pyramid Texts and Egyptian mythology, the symbolism surrounding the eye is closely related to sexual metaphors and the transference of power.

The feud between Seth and Horus contains of two parts: first Horus is violated sexually by Seth and loses one of his eyes to him, but on the other hand, Horus tears off one or both of Seth’s testicles. The second part of the myth describes how Horus regained his wounded eye and restored its powers.

Seth violated Horus homosexually as evident in the Kahun Papyrus and in The Contendings of Horus and Seth, but there are also vague references to the episode in the Pyramid Texts (Griffiths 1960:48-49). It is through this violation that Horus’ Eye became wounded, and hence, the equivalence of eye and phallus is found in the Horus-Seth feud. In the homosexual episode in which Seth violates Horus there is a discharge from the wound in the eye, which can either be interpreted as caused by a blow or a sexual act. ‘After Seth had withdrawn’ suggests that something is ‘dragged out’, ‘pulled out’ or ‘flowed out’, which may indicate Seth’s finger or phallus, although these are not mentioned as direct objects. If the meaning is to flow out, Horus’ Eye can drip (te Velde 1967:36): ‘The Eye of Horus drips upon the bush of...’ [Pyr. 133]. Because of Seth’s actions, the eye becomes small and loses its strength; the eye’s discharge can be seen as tears (te Velde 1967:36). There are also other versions. Seth trampled on the eye; ‘O Osiris the King, take the Eye of Horus which Seth has trampled’ [Pyr. 73] whereas in Pyr. 60 Osiris prevents Seth from trampling on the eye. Seth has also eaten of the eye [Pyr. 61], but a more explicit reference to the life-giving waters is found in Pyr. 88: ‘O Osiris the King, take the Eye of Horus, the water in which he has squeezed out’. Hence, the life-giving capacities of Horus’ eye were wounded. In the Pyramid Texts there are references to Horus’ two eyes, ‘Take the two Eyes of Horus, the black and the white...’ [Pyr. 33], and it is only one of the eyes which have been injured by Seth. The other was called The Sound Eye (Griffiths 1960:41). Horus’ right eye was the sun and his left eye the moon (Griffiths 1960:125). The Solar Eye was wounded whereas the left eye, the moon, which became Osiris, remained untouched.

In this battle between Seth and Horus, Horus abducts one or both of Seth’s testicles. Several sky-gods have been castrated by others, and in general this represents the supplanting of one by another. Seth, as the storm god, suffered this at the hands of Horus (Wainwright 1935:154). ‘Horus has cried out because of his Eye, Seth has cried out because of his testicles, and there leaps up the Eye of Horus, who had fallen on yonder side of the Winding Waterway, so that it may protect itself from Seth...’ [Pyr. 594]. The bull came to symbolise the storm-god and was Seth’s animal; ‘Horus fell because of his Eye, the Bull [Seth] crawled away because of his testicles; fall! Crawl away!’ [Pyr. 418]. Min, however, who also was a sky god, was saved from this fate and turned into a fertility god. In the Nineteenth and the Twentieth Dynasties a hymn addressing Min as the ‘Great Bull’ is preceded by ‘opening the rain-clouds, the wind on the river’ (Wainwright 1935:161). Thus, ‘While Min himself could be called “the King upon the rain-clouds”, his Bull was said to be “opening the rain-clouds, the wind on the river”’ (Wainwright 1935:170).

The abduction of Seth’s testicles does not always mean castration and Seth does not become a eunuch, but it can also be seen as theft of seed, leading to Seth’s impotence (te Velde 1967:31-33). ‘The wily theft of seed in the myth becomes castration by violence in the cult, because there is no other means of taking away the sexual power of the sacrificial animal than castration. This castration in the cult to present Horus’ clever stealing of the semen, may be ancient’ (te Velde 1967:58). After the battle Seth was no longer seen and worshipped as the virile god of thunder, and Seth’s homosexual act threatened the cosmic order (te Velde 1967:43). ‘The sacrifice of the testicles to Seth, however, never takes place separately, as far as can be ascertained, but in the conjunction with the Eye of Horus. This means that the eye and testicles are sacrificed to a double-god; Seth no longer has an individual place of his own, but is integrated in Horus’ (te Velde 1967:55).

Seth is pacified and Horus has gained the former rain gods’ power, but only after he regained his wounded eye. After the eye is injured it is filled up (Griffiths 1960:30), and consequently, all the former rainwater was now contained in Horus’ Eye. Moreover, the goddess of spinning and weaving clothes is known as Tayet, and her clothes are referred to as ‘the woven eye of Horus’, for instance in Pyr. 1202 where it says ‘...head-band of green and red cloth which has been woven from the Eye of
Horus in order to bandage therewith that finger of Osiris which has become diseased’. Thus, this relates Tayet to the process of embalming (el-Saady 1994) and linking the life-giving waters to death and further life. The deceased’s thirst is an important metaphor in the funerary rituals, as will be discussed later. In the ‘Opening of the Mouth’ ceremony the dead received the Eye of Horus which wells up with water. The Eye contained the ‘fluids of life’ (Dundes 1981:274).

There is a huge variation in symbolism with regards to Horus’ Eyes, but one prominent aspect of this symbolism is the association to political power. Seth’s castration implies the seizure of political power. Seth is, as mentioned, said to have eaten one of the eyes; ‘O Osiris the King, take the Eye of Horus, for little is that which Seth has eaten of it’ [Pyr. 61]. In the Cannibal Hymn it is said that ‘He [the King] has eaten the Red Crown, He has swallowed the Green one...’ [Pyr. 410]. Seth ate the Egyptian crowns, and the white crown was sometimes called the green crown (Griffiths 1960:120), making him a threat to cosmic stability and Egypt. Thus, there is an important transference of power, with Horus being interpreted as the national god of Lower Egypt, which was pointed out by Pleyte as early as 1865 (Gardiner 1944-24). According to the Memphite Theology, which presented the new religious teachings in Menes’ new capital, the quarrel between Seth and Horus was eventually settled by a divine tribunal led by Geb. The text originated in an early stage of the Egyptian monarchy, but the extant copy dates back to the 8th century BCE (Frankfort 1948:24, 352), although the trial is referred to in the Pyramid Texts as well:

‘...the Ennead gathered to him (Geb) and he separated Horus and Seth...He prevented them from quarrelling and installed Seth as Upper Egyptian king, in Upper Egypt, at the place where he was born, in Su...And Geb put Horus as Lower Egyptian king in Lower Egypt, at the place where his father was drowned, at the “Half of the Two Lands” (probably near Memphis). And so Horus was in his place, and Seth was in his place; and they agreed with each other as regards the Two Lands in Ajan (opposite Cairo), which is the frontier (or separation) of the Two Lands...It suited Geb’s heart ill that the portion of Horus was like that of Seth, and so Geb gave his heritage (entirely) to Horus, that is, the son of his son, his eldest (literally, “his opener-of-the-body”)’ (quoted in Frankfort 1948:26).

Thus, originally Egypt was divided between Seth in Upper Egypt and Horus in Lower Egypt. Horus became the king of the Two Lands not as a conqueror but as the rightful heir since he was Osiris’ eldest son (Frankfort 1948:26). A striking feature of Seth is that he is not destroyed or annihilated, but removed to be with the sun god in the sky where he can thunder, and according to The Chester Beatty Papyri (Gardiner 1931), ‘people will be afraid of him’ (Frankfort 1961:129). Hence, as will be argued later, he cannot be annihilated because he has a fundamental cosmogonic role in the creation of cosmos and the constitution of society, or more precisely, in the dualism between chaos and cosmos since cosmos originates from chaos.

### The Sun and Water

From around 2600 BCE onwards, the king received the title ‘son of Ra’ and the sun cult was institutionalised with Djoser and the Step Pyramid (fig. 20) (Quirke 2001). Horus the Elder did not primarily represent the Sun, but encompassed everything: he was Horus the Falcon, the Lord of Heaven and the earthly king (Anthes 1959:171). According to Wainwright, the former sky gods were either transformed into fertility gods or became solarised (Wainwright 1935:170). Horus was solarised and gained absolute power; Min became a fertility god, whereas Seth lost all his powers and became the incarnation of evil.

A transformation and transfiguration of power thus took place. The life-giving waters – from rain or rivers – were the object of the feud between Seth and Horus, which means the life and prosperity of all of Egypt were at stake. It is therefore necessary to focus on the key qualities and characteristics of the sun or the sun god (fig. 21). This will be elaborated more thoroughly later, but here follow some important features.

#### Movement and cosmic demarcation

The pharaoh’s realm was often described as ‘that which the sun encircles’, or, in other words, the earth (Frankfort 1948:19, Redford 1995:172), while the name Ra means probably only ‘the sun disc’ (Anthes 1959:180). According to Plutarch (34), the Egyptians described the sun and the moon as sailing round the world in boats, intimating that these bodies owed their power of movement, as well as their support and nourishment, to the principle of humidity. The two boats are a symbolic, polar opposite pair or dual unit of day and night/east and west, which comprise the total movement of the sun (Assmann 1995:50). ‘The divine power which is manifest in the sun thus appears, in its fullness, to surpass all and comprise all...the sun represents the divine in a form which far surpasses even the divinity of the kings’ (Frankfort 1948:159).

#### Purity

The sun god is closely associated with ablutions and purity. Before he could enter the temple, he was washed, and after death, he was washed before he could enter the kingdom of the sun god. The sun god was reborn every morning from the womb of the sky goddess, and underwent daily lustrations at dawn from sacred pools. The pharaoh underwent the same ritual washing after death as he did when alive in the ‘House of the Morning’ (Blackman 1925:2006-207). Thus, the immanent life-giving qualities of water were of utmost importance; ‘This cold water of yours, O Osiris, this cold water of yours, O King, has gone forth to your son, has gone forth to Horus. I have come and I bring to you the Eye of Horus, that heart may be refreshed possessing it’ [Pyr. 22]. Cold water was life, but only through the Eye.
Fig. 20. Djoser’s Step Pyramid at Saqqara from the Third Dynasty (height: 62.5m). Photo: Terje Oestigaard.

Fig. 21. The sun sets on Luxor’s west bank. Photo: Terje Oestigaard.
The Eye is water. A common theme throughout Egyptian mythology is that the Eye or the sun disc contains the life-giving waters and brings forth the Nile’s inundation. ‘O Osiris, your shade which is over you, O Osiris, which repels your striking power, O Seth’ [Pyr. 1487]. Anthes has argued that Seth’s character as his brother’s murderer ‘appears closely correlated with the hostility of the desert and its murderous heat, and the destruction of the testicles of Seth may recall the sterility of the desert’ (Anthes 1959:199). Qualities that we normally associate with the sun – warmth and heat – were actually qualities associated with Seth and not the sun disc. Thus, our normal conception of the sun’s rays as heat-giving were not seen as an intrinsic quality of the sun; however, sun rays brought forth the life-giving waters in the form of blood or the most precious bodily fluid.

As a preliminary summary, sun worship is not a worship of the sun as a warm and intensely burning disc as it appears in the sky – these are Seth’s deadly qualities. On the other hand, the sun disc and the sun god represent numerous life-giving aspects expressed in water metaphors, which we initially would not have associated with the sun. These aspects will be further elaborated in the following chapters, but so far one may identify some characteristics of the sun which relate to water:

a) Horus’ Eyes are the sun and the moon disc.
b) The sun disc travels in the day-time sun and night-time moon.
c) The sun god is a symbol of purity.
d) The Eye is water and contains the Nile’s qualities and the inundation.
e) The Eye is the Crown.
f) The sun’s warmth and heat are qualities of Seth and not of the sun god.

Hence, the sun is water and life and this has to be seen in relation to the original feud between Seth as a rain god and Horus who brought forth the life-giving waters in the form of blood or the most precious bodily fluid.

Thus, the solar disc is a residue and symbol of numerous life-giving qualities of which water and the Nile’s inundation is one of, if not the most, important.

The Crown is the Eye. In Pyr. 410 Seth ate the red and the green/white crown, symbolically represented as eyes. There is thus a close metaphorical link between the eye and the crown. ‘O King, the dread of you is the intact Eye of Horus, (namely) the White Crown…O King, I provide you with the Eye of Horus, the Red Crown rich in power and many-natured, that it may protect you, O King, just as it protects Horus…’ [Pyr. 900-901]. The king claims his rights as that of Horus through the Eye: ‘My refuge is my Eye, my protection is my Eye, my strength is my Eye, my power is my Eye’ [Pyr. 320]. Importantly, as expressed in this spell, it is the control and access to the life-giving waters which give the king the divine legitimacy to the throne and empowers him as a god: ‘O Osiris the King, take the water which is in the Eye of Horus. O King, fill your hand with the hrs-sceptre, that it may equip you as a god. Do not let go of it! Beware lest you let go of it! – a hrs-sceptre’ [Pyr. 47]. Thus, this seems to be a parallel to the divine rainmaker who gives the necessary life-giving water to his people; the one who has the crown is the controller of the water worlds.

Warmth and heat. In some of the earlier allusions Seth seems to be the giver of light when he is transferred to heaven. More importantly, Seth is also seen as the power of the heat in the sun (Griffiths 1960:125): ‘Your tomb(?),
Finally, it was not only the sun which contained water and the Nile. In Egypt, the moon was seen to influence germination of seeds as well as affecting the fertility of animals (Frankfort 1948:196). ‘Your water is in the sky, your thousands are on earth...’ [Pyr. 667]. If the sky is water, and still not rain, Seth has to disappear. The king is re-born; ‘The waters of life which are in the sky come, the waters of life which are in the earth come, the sky is aflame for you, the earth quakes at you before the god’s birth’ [Pyr. 2063]. This is in accordance with Ptolemy’s description of the origin of the Nile, where he says the Nile came from the ‘Mountains of the Moon’, and the moon is Osiris. Hence, according to myths, the moon was also the source of the Nile together with Osiris’s body, the Sun and Horus’ Eye, and Elephantine since they represented aspects of the same unity.

Seth Murders Osiris

Although the conflict between Horus and Seth is closely linked with Osiris, they had separate origins and were only later merged together. Osiris is believed to have been an ancient divine king who reigned in the Delta (Hornblower 1937a:155). The Osirian form was most likely developed in the Gerzean period (ca. 3500-3200 BCE) in Egypt, characterised by hunting for food. With the unification and the rise of a temple priesthood, the ethical and judicial functions of the sun god were not linked with Osiris, they had separate origins and were consequently the victory of good over evil. Death and the Nile came from the ‘Mountains of the Moon’, and the sun was a flame for you, the earth quakes at you before the god’s birth’ [Pyr. 2063]. This is in accordance with Ptolemy’s description of the origin of the Nile, where he says the Nile came from the ‘Mountains of the Moon’, and the moon is Osiris. Hence, according to myths, the moon was also the source of the Nile together with Osiris’s body, the Sun and Horus’ Eye, and Elephantine since they represented aspects of the same unity.

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As a result of the fusion of the Osiris and Horus myths, Seth’s hostility was extended to Horus as the son of Isis. The reason that Osiris was identified with the deceased and not the living king is probably that Osiris in his original character was a god of the dead and since the first time Osiris appears in the religious literature, it is as a king of the dead (Griffiths 1960). On the other hand, it has been suggested that he originally was a god of vegetation in addition to being Moon God, King and Judge of the Dead. The Nile represented life and fecundity, symbolising life surpassing death and consequently the victory of good over evil. Death and resurrection corresponded to the Egyptian agricultural year. However, Osiris is also perceived to have originated as an Egyptian king, and normally depicted as a dead king (fig. 22). Thus, one may perceive Osiris in two ways: he originated as a king ruling over life and death, and hence was also attributed the role and realm of nature and vegetation; or on the other hand, he was accepted as a king because of his characteristics as a god of vegetation (David 1981:119-120). Therefore, Frankfort argues, ‘It seems futile to inquire whether there are historical foundations for the myth and person of Osiris’ (Frankfort 1948:212). I will, on the other hand, argue that it is still possible to shed new lights on these issues by a water perspective.

Following the mythology, the king was ‘born in the Abyss before the sky existed, before the earth existed, before that which was to be made firm existed, before turmoil existed, before that fear which arose on account of the Eye of Horus’ [Pyr. 1040] and in [Pyr. 1463] it is also referred to that the king ‘was born before the Eye of Horus was gouged out(?), before the testicles of Seth were torn off’.

In real life ‘The crown prince, born a man, became Horus not before his father had become Osiris. Osiris and Horus were by their very nature the royal deceased father and his living royal son’ (Anthes 1959:175) and consequently, ‘it was the king’s transition from Horus into Osiris which confirmed his existence as an eternal being’ (Anthes 1959:180).

Seth murders Osiris by drowning, which is evident in the classical sources but also in the Pyramid Texts (see also Pyr. 24, 615), ‘You [Isis] have come seeking your Brother Osiris, for his brother has thrown him down on his side in yonder side of Ghsty’ [Pyr. 972], ‘They have found Osiris, his brother Seth having him laid him low in Nedit...’ [Pyr. 1256] and ‘Osiris was laid low by his brother Seth, but He who is in Nedit moves, his head was raised by Re...’ [Pyr. 1500].

According to the myth, Seth inflicted a wound on Osiris’ leg from where the annual inundation poured out, and the leg was connected with Elephantine. In later versions of the myth, Osiris’ body was dismembered into 42 parts identical to the 42 names of Egypt, which symbolised the body of Osiris (Assmann 2005:361), and Osiris is sometimes called ‘the dismembered one’ (te Velde 1967:5). The 42 districts were seen as the limbs of Osiris, and Egypt as his body. The ritual of embalming Osiris included and applied to the whole country and united, inspirted and renewed it (Mohov 2005:109). Horus gave his father the Eye, which contained the rejuvenating powers, which in turn restored life to Osiris. This theme, which is evident throughout the Pyramid Texts, will be more fully elaborated in the next chapter.

‘In the context of the myth of Osiris, the dismemberment of the god’s body has dual function and meaning, to which corresponds a dual tradition. Seth has not only killed his brother Osiris, but also, in a second act of violence, cut his corpse to pieces and thrown these into the water’ (Assmann 1989:138). The motif in this myth seems to present the same theme as presented in the original myth of the feud between Seth and Horus the Elder. Seth robs the life-giving water. In the older myth Horus the Elder snatched back his Eye and made Seth impotent, in the Osiris myth it is Horus the Son who killed Seth and restored the life-giving waters as the flood by giving his Eye to Osiris who was rejuvenated through the water (Assmann 1989:139). Nile water was confounded with Osiris since he was drowned in the Nile (Leibovitch 1953:106). According to Herodotus, a person became holy if he was drowned in the Nile, which has to be seen in light of Osiris’ death in the river.
Fig. 22. Osiris. Temple of Seti I, Abydos. Photo: Terje Oestigaard.
The floating of Osiris in the water rather than the drowning probably mirrored the cultivated land which submerged in the annual Nile flood (Anthes 1959:199). Following the Pyramid Texts, ‘Horus has assembled the gods for you, and they will never escape from you in the place where you have gone. Horus has mustered the gods for you, and they will never escape from you in the place where you were drowned’ [Pyr. 615] and ‘Receive the efflux which issued from you, for Horus has caused the gods to assemble for you in the place where you went. Receive the efflux which issued from you, for Horus has caused his children to muster for you in the place where you drowned’ [Pyr. 766].

The drowning of Osiris in water may imply that water was seen as a symbol of death and chaos, but that this perception was changed to signify resurrection and rejuvenation. This is the crucial aspect of the Osiris myth, not the murder and dismemberment (te Velde 1967:86, 94). ‘Osiris is death from which life arises, and Seth is life which produces death’ (te Velde 1967:95). Osiris was resurrected, but he did not reascend to the throne. Hence, Seth’s work was not entirely undone since he also had a vital function in the cosmic order (Frankfort 1948:198). The Osiris-Seth duality is that of life and death. Horus is the son who saves his father (Griffiths 1960:14), but it is possible to see this relation more intimately. ‘Since Horus was the living king and Osiris the deceased one, the slaying of Osiris was strictly speaking the slaying of Horus, who in consequence of his being slain, became Osiris…Horus, the son, felled Seth, regained the eye of Horus, and restored it to Osiris; for Osiris, who was Horus when he lost it, was its genuine owner’ (Anthes 1959:200).

It seems that the concept of the eye was intimately connected with kingship rather than celestial notions, which may explain why it was necessary to connect as closely as possible the myth of Horus’ Eye with the story of Horus as the son of Osiris (Anthes 1959:202). Memphis was believed to have a special role in ‘sustaining’ Egypt because the interred body of Osiris was drawn ashore here by Isis and Nephthys. This ‘finding’ of Osiris, which is described as the recovery of his body by Isis and Nephthys, is ritually represented by the rite where a jar of fresh Nile water is lifted up. Moreover, it was believed that Osiris was buried in Memphis, and hence, it was a centre from which vital forces radiated and explained the extraordinary fertility of the region (Frankfort 1948:30-31). Horus became the king and received Egypt whereas Seth was driven out into the desert, hence he is not given the red land but he is driven away to it (te Velde 1967:66).

The Continuance of Seth in the Mythology

The feud between Horus and Seth and then Osiris and Seth not only enabled the divine kingship, but formed the very basis for the annual inundation. Cosmogonically, ‘the death of a god signifies the transition from ontology to history. The divine enters the realm of human life and anticipates its pattern. The death of a god signals the integration of mankind into the mechanism of the cosmos’ (Troy 1986:36). Therefore, Seth cannot be seen as evil in a strict sense since he is the one who takes the cosmic offering or scapegoat position of killing his brother, which enables the rise, unification and resilience of Ancient Egypt. This task was assigned to a rain god, because when the rain declined Seth as a god lost his importance as the life-giving source for the people and welfare of Egypt. One life-giving god gave room and enabled another – Horus – whose Eye had transformed and incorporated the former rain ideology into a river ideology; the Eye was a symbolic well of water from which the annual inundation originated. Nevertheless, this mythology was incomplete, and only through death and the transfiguration and rejuvenation of Osiris, in which the Nile was his exudation, did the river ideology become complete.

Still, one may ask why Seth continued to exist as a god when he did not fulfil his original role as a rain god. In other contexts rain gods who did not fulfil their function of procuring rain ceased to be perceived as divinities, and soon faded out of society and history since they could not procure the life-giving waters (Tvedt 1997, McKitterick 2006). In Egypt, on the other hand, the mythology was built around Seth who enabled the annual flood through the murder of Osiris. Hence, he could not die and disappear in history. Plutarch describes an important feature in this regard (Plutarch 54:1-2): ‘Hence not unreasonably do they say in the myth that [while] the Soul of Osiris is eternal and indestructible, Typhon often tears his Body in pieces and makes it disappear, and that Isis seeks it wandering and puts it together again. For the Real and Conceivable-by-the-mind-alone and Good is superior to destruction and change...’.

The dismemberment of Osiris’ body and the scattering across all of Egypt convey associations of ritual fertilisation throughout the country (Mojsov 2005:7). Plutarch refers to Osiris’ body as frequently dismembered, which probably means it was annually dismembered. From a cosmogonic perspective this fits very well with the yearly inundation, and since the flood is Osiris’ efflux, Osiris must be murdered each year to provide the life-giving waters. Consequently, Seth continued to play a fundamental role long after he lost his rainmaking powers because he guaranteed the yearly flood by murdering Osiris, and the dismemberment is the flood which covered all of Egypt. Finally, Egypt means ‘black land’ in contrast to the red and sterile desert, which belonged to Seth. Hence, Egypt itself as a fertile land was the anti-thesis of Seth and death. This dichotomy was necessary for the development of the river religion. Egypt was the land that was flooded by the Nile, and the black land was also the fertilising silt which created prosperity and a fruitful harvest for the Ancient Egyptians.

The dismemberment of Osiris also works mythologically and physically at a deeper level relating directly to the qualities of the Nile. The Osiris mythology was built around the annual flood and its yearly changing character. The flood changed colours from clear or blue water to green, red and finally white before it returned back to the
clear, blue colour which characterises the Nile in Egypt today. These changes formed the basis for the mythology, which at a symbolical level, it will be suggested, also represented the time span of a pregnancy and thus associated the rebirth and rejuvenation of Osiris to the seasonal rhythms.
Chapter 4: Osiris’ Discharge, Isis’ Tear and Breast Milk – The Green Nile, the Red Nile and the White Nile

Mythology, Ideology and Ecology

Mythological narratives were of great importance to the Ancient Egyptians. Mythology refers to many levels of reality simultaneously (Fideler 1993:23), and myth may be seen as ‘the expression of unobservable realities in terms of observable phenomena’ (Schniewind 1953:47). The aim here is not to define the term ‘myth’, partly because any definition of the role and function of a mythological system will be context dependent and culturally defined. Of key interest here is which processes have contributed to forming the myths (Hocart 1922:63)?

With regards to myths, there are broadly two main approaches: either they are purely fictitious narratives and parables involving supernatural persons, actions or events, or they embody popular stories about natural processes and historic events in a particular culture (Ruck 1997:334). The postmodern school of thought sees mythology as constructed cosmologies without any relation to an external reality or real world. Instead, the mythology itself with its metaphors constitutes reality. Moreover, myths are often perceived as arbitrary or meaningless, but they nevertheless appear all over the world. Consequently, the irrationality of myth is considered by some as the core of many religions because it challenges the logic of critical doubt (Leach 1969:7). On the contrary, early anthropologists approached myths from a different angle and suggested ‘that myths are not the creations of unbridled fancy, but in many cases at least are sober historical records’ (Hocart 1922:57), and as a consequence, ‘myths form the most important part of their traditions, not merely justifying and sanctifying all their rites and costumes, but being regarded as in themselves a source of life’ (Raglan 1970:6, my emphasis).

Thus, the main question: are myths totally arbitrary, imaginary and fictional, even though they constitute a religious cosmology structuring society? Or do myths originate in factual and historic events or natural phenomena and processes? In the very first paragraph on the first page of The Raw and The Cooked, Claude Lévi-Strauss states that ‘The aim of this book is to show how empirical categories – such as the categories of the raw and the cooked, the fresh and the decayed, the moistened and the burned, etc., which can only be accurately defined by ethnographic observation and, in each instance, by adopting the standpoint of a particular culture – can nonetheless be used as conceptual tools with which to elaborate abstract ideas and combine them in the form of propositions’ (Lévi-Strauss 1969:1). Hence, the point of departure for Lévi-Strauss in his analyses is that myths have objective correlates which are found in the real world. The ethnographic materiality is the basis for the mythology. However, according to Lévi-Strauss, the aim of analysing mythology is not the collection of observable facts, but the analysis of underlying structures because in order to understand the myth, one must search for the structure and not the story (Lévi-Strauss 1968:214).

As a consequence, and with the following postmodern agenda, little emphasis has been laid on the material basis for metaphors and mythology. Still, as Fredrik Barth (1975) has shown through his analysis of the Baktaman people, in the process of making metaphors, material metaphors are not completely arbitrary, and there is a connection between form and meaning. This is also the rationale behind Lévi-Strauss’ phrase that some materialities are ‘good to think with’ whether it is animals or artefacts. This approach contradicts Saussure’s (1960) and Barthes’ (1973) axiom that within the conception of a sign, there exists no direct relation to reality because the relationship between the signifier and the signified is entirely arbitrary or a matter of convention.

A material culture approach, on the other hand, highlights the structuring role of materiality in social processes (e.g. Miller 1985, 1987, 1998, Miller & Tilley 1996) because ‘Material culture is as important, and as fundamental, to the constitution of the social world as language’ (Tilley 1996:4). In this argument metaphors also have a material basis and reference that can be used for cultural and religious elaboration (Tilley 1999). Similarly, religion is not only abstract doctrines and dogmas, but it also involves material things, devotees and rites because ‘Religion is fundamentally material in practice’ (Goa, Plate & Paine 2005:4). Moreover, in other contexts, environmental changes and catastrophic events in the landscape have been incorporated into mythology (e.g. Nunn 2001).

However, although the shift to material culture studies opens new paths to knowledge production, in particular from an archaeological perspective, there are nevertheless some inherent problems in the concept of material culture or materiality. The material dimension or materiality in a broad sense is nature, which is modified in one way or another or given cultural or cosmological significance. In the words of Godelier, ‘Human beings have a history because they transform nature’ (Godelier 1988:1). The ability to change the relations with nature by transforming nature itself is specific to human beings and may take on several forms. Firstly, traditionally certain spheres were considered to be outside the direct influence of humankind, yet still affected humans such as the
climate, the nature of the subsoil etc. Secondly, part of nature is indirectly transformed by human activities through for instance stockbreeding, slash-and-burn agriculture, etc. Thirdly, part of nature is directly transformed by human activities such as domestication, etc. Finally, there is another part of nature which is modified by human beings into tools or artefacts, houses, boats, etc. (Godelier 1988:2-4). Hence,

‘The boundary between nature and culture, the distinction between the material and the mental, tend to...dissolve once we approach that part of nature which is directly subordinated to humanity – that is, produced or reproduced by it (domestic animals and plants, tools, weapons, clothes). Although external to us, this nature is not external to culture, society or history’ (Godelier 1988:4-5).

The problem with approaching materiality or nature from this perspective is that nature or materiality is again seen as an entity. Material culture as a concept may limit the analysis to Godelier’s last point; namely which is modified directly into artefacts or monuments etc., which has been the main object of study in archaeology. However, in theory and in practice, this excludes other parts of nature, such as landscape analyses and archaeologies of natural places (Bradley 2000) or physically unmodified nature, which is nevertheless imbued with cultural and cosmological significance. Moreover, an emphasis on only materiality may (deliberately or not) lead to the creation of a dichotomy between materiality (modified or not) and culture.

A water approach may, however, be fruitful because water is both nature and culture/religion, and as part of nature it will limit the analysis since only one ‘natural’ or material element is investigated. As a cultural and religious phenomenon, water has particular characteristics, because water is both universal and always particular. The water which flowed in the Nile and was used by the Ancient Egyptians thousands of years ago is still the same water we use today for domestic purposes. For millennia it has been part of the hydrological cycle and taken many different forms, but it is still the same. Nevertheless, the water world and the forms water takes at a particular place in a specific period in history will be context dependent. Similarly, the various uses and ideas of water are culturally and religiously constituted. Hence, through water it is possible to study both the universal and the particular (Tvedt & Oestigaard 2010a).

The Egyptian water world differed from the other early civilisations’ water worlds, particularly since the whole country was dependent upon the annual flood. This physical world created both limitations and possibilities for social organisation and cultural development. It also created a religion which produced the largest monuments in the world. Thus, it will be argued, the water world, which was the foundation of all life, was the material source for the mythology and the religion it developed.

Today, mythology and religion are generally seen as mere ideological constructs which do not relate to the physical environment or actual natural processes. This may be explained through the fact that early Egyptologists interpreted mythology and the unification of the two kingdoms as historical and political events that actually took place. When the school of thought in which mythology was considered to describe real events was abandoned, the baby was thrown out with the bath water. Mythology became a collection of religious constructs and theological narratives which did not relate to the real environment of the Nile with all its limitations and possibilities. The religion was so to speak lifted from the terrestrial domain to the celestial domain. I will argue, on the contrary, that the Nile itself and its fluctuation formed the basis for the Egyptian mythology, and that the Ancient Egyptians’ religion directly related mythology and ideology to ecology.

All Waters are Osiris

Osiris was equated to every known body or type of water – the Aegean Sea, the Ocean, the Bitter Lakes, etc. (Frankfort 1948:191), although Plutarch refers to the sea as Seth, and to quote Plutarch again: ‘But the more wise of the priests call not only the Nile Osiris, and the sea Typhon; but [they call] without exception every source and power that moistens, Osiris – considering [him] cause of generation and essence of seed, and Typhon everything dry and fiery, and of a drying nature generally and one hostile to moisture’ (Plutarch 33:1). This corresponds to the oppositional pair ‘wet’ and ‘dry’ meaning life and death (Dundes 1981:266-267). Thus, Osiris is water in its many forms from moisture to the river and the sea, where each type has particular qualities and capacities. Nevertheless, the Nile was the most important water body, and the annual inundation was a vital phenomenon for the Ancient Egyptians. Hence, the Nile and the inundation attained a unique place in Ancient Egyptian religious thought and the cosmological world of metaphors.

The Nile was seen as originating from the first cataract at Aswan, ‘O King, receive this pure water of yours which issued from Elephantine, your water from Elephantine...’ [Pyr. 864]. Thus, Osiris may appear in the function of Nun, the primeval waters. These waters were also beneath the earth, and as the origin of everything that exists, it was an immeasurable source of fertility. Furthermore, the primeval waters were also seen as the source of the waters of inundation. This relation between Nun and Osiris leads to a situation in which Osiris is identified as the ‘father’ of the sun since he rises each morning from the waters of Nun (Frankfort 1948:391, footnote 38). Nun surrounds the earth, and if these waters are associated with Osiris and the Nile flood, then the sun rises from Nun/Osiris every morning as it did on the day of creation. Hence, Osiris can be a parent of Ra and he is designated and identified as the ‘father’ of Ra (Lange & Neugebauer 1940:22-23). It is, however, strange that this identification and combination had no other cosmological consequences (Frankfort 1948:395, footnote 101).
The Nile water was supposed to have special life-giving virtues (Aldred 1984:59). The vitality emerging from earth, either in the form of plants or the water of the Nile, was seen as a manifestation of Osiris. Moreover, the different types of waters had specific qualities, and in particular the inundation: ‘The water of inundation which carried the silt was called the “pure water” or the “young water”, and it is this water that was thought to be brought by Osiris or to emanate from him or to take its power from him’ (Frankfort 1948:190). ‘Horus comes and recognizes his father in you, you being young in your name of “Fresh Water”; Horus has split open your mouth for you’ [Pyr. 589]. Moreover, the earth became purified by the life-giving waters of Osiris: ‘The canals are filled, the waterways are flooded by means of the purification which issued from Osiris’ [Pyr. 848]. Thus, the inundation caused not only fertility, but also a religious purity of the arable land, linking agriculture to rituals and religion. This scene appears to also be depicted on the Scorpion macehead where the king is shown opening a canal in what seems to be an irrigation ceremony (Gardiner 1961:403).

The result of water and agriculture is a successful harvest or, in general terms, life in its broadest sense. ‘Osiris is manifest in the life-giving waters rising from earth when land and people need them most’ (Frankfort 1948:191). These immanent powers of procreation were celebrated and venerated, and there was a close intimacy in Egypt between kingship and nature’s generative forces (Frankfort 1948:136). The power of the buried king was seen as breaking forth from the earth where he rested; the plants sprouted from the earth, the Nile waters flooded the banks (fig. 23), and the moon and Orion rose above the horizon (Frankfort 1948:34). Osiris was killed but rejuvenated and the most important identification and character of Osiris was the relation between water and death. He was buried in the Nile, but Osiris was also perceived as a personification of the Nile (Pyr. 1044-45). This embodiment of the Nile was believed to be real and intimately connected to death. In fact, the waters were the divine blood and life juice from which all life arose.

The inundation was thought to be made up of the liquids running from Osiris’ decaying corpse. The Nile and the flood were the efflux of Osiris (Frankfort 1948:191), which is confirmed by numerous spells and hymns in the Pyramid Texts: ‘You have your water, you have your flood, the fluid which issued from the god, the exudation which issued from Osiris…’ [Pyr. 788] and ‘Raise yourself, O spirit of this King! Your water is yours, your flood is yours, your efflux which issued from the
putrefaction of Osiris is yours’ [Pyr. 1360]. In particular the flood was perceived as Osiris’ discharge, which had its origin in heaven: ‘Your water is yours, your flood is yours, your efflux which issued from Osiris is yours. The doors of the sky are opened for you, the doors of Nut are thrown open for you; the doors of the sky are opened for you, the doors of the firmament are thrown open for you’ [Pyr. 1291]. The idea of the doors of the sky giving water has been related to ancient rain traditions which saw the waters as coming from heaven. Thus, the belief that the waters were simultaneously coming from heaven and Nut (the underworld) continued in the Osiris mythology.

The king possessed Osiris’ bodily fluids; ‘You have your water, you have your efflux, you have your flood which issued from Osiris’ [Pyr. 2031], and it is also made explicit that the water is the Osiris’ blood: ‘[…] which issued from […] The King is the blood which issued from Re, the sweet which issued from Isis’ [Pyr. 1263].

Thus, the Nile and its flood in particular were designated as Osiris’ efflux or discharge. According to Plutarch, however, this belief was not limited to the inundation: ‘And they call not only the Nile, but also without distinction all that is moist, “Osiris’ efflux”, and the water-vase always heads the processions of the priests in honour of the God’ (Plutarch 36.1). Lustrations using sacred waters from Elephantine had a monumental significance in the Pyramid Age if not earlier (Breasted 1959:103f). ‘Thus, all the lustration- and libation-formulae, which identify the water with putrescence and exudations from the corpse, are Osiran, replacing the older solar formulae’ (Blackman 1925:208) and creating a world in which everything was structured around the life-giving waters and the transformation of life from death.

The drowning of Osiris was a very concrete image of the fertilising power of the flood in combination with an anthropomorphic figure. The earth’s power to bring forth grain and prosperity vanish when the water in the river diminishes to a few channels in the riverbed. Osiris was drowned and thrown into the river by the hostile Seth. When the flood reappeared, fertility was restored, and Osiris was ‘found’ by Isis (Frankfort 1948:191). ‘If the recession of the Nile flood showed the diminution of the god’s power in one sphere, it was merely as a prelude to an increased display of his vigour in another. For almost at once the freshly sown grain would start to sprout in the drying fields’ (Frankfort 1948:193).

Life had its origin in death. The Egyptian culture rebelled against death and did not accept it. Hence, the rebellion took the form of religion which created a counterworld, and these images did not reflect a distant ‘next’ world but a very real one in the here and now (Assmann 2005:19). Isis saved Osiris by searching for his corpse, protecting it and endowing it with new life. According to Herodotus, the Egyptian embalming ritual took 70 days. ‘The Pharaoh received his lunar ka…from Hathor and Isis but his solar ka from Osiris in a rite which followed his accession to the throne. Osiris in this context represented the Royal Ancestors, for the ka of every deceased king united with that of his Royal Ancestors in heaven’ (Meyerowitz 1960:113). The body was seen as a puppet which was brought to life by using the heart and blood as a connective medium (Assmann 2005:32-39). Moreover, ‘Death was also part of the cosmic order; it did not threaten the cosmos from outside but only life from within’ (Assmann 2005:70). The inundation was the ‘renewal’ and ‘rebirth’ of the river, and even in the Old Kingdom these waters were called ‘the new water’ (Wild 1981:28). Hence, it is precisely because death is the source of further life that the flood is Osiris’ discharge and the deceased is rejuvenated through it. In a desert environment in which the Nile was the only provider of water and life, its rejuvenating and regenerative powers were the axis on which cosmos was centred.

The Eye and the Efflux

In Spell 943 in the Coffin Texts (CT VII, 157) the refrain ‘I have appeared as the Eye of Horus, the Eye of Horus has appeared as I’ occurs several times, indicating that ‘the Eye of Horus and the deceased could be regarded as interchangeable’ (Faulkner 1982:27). As indicated earlier, there is a very close relation between the Eye and the flood, which has its origin simultaneously in heaven and in the cosmic waters of Nun. The classical libation spell in Egyptian history is Spell 32 of the Pyramid Texts [Pyr. 22-23], which occurs about 100 times throughout all periods (Assmann 2005:356-357):

Assmans’s 2005 translation

‘This your libation water, Osiris, this your libation water, O Wenis, has come out from your son, has come out from Horus.

I have come to bring you the Eye of Horus, that your heart may be radiant by means of it. I have brought it beneath you, under your feet.

Take the discharge that has issued from you, may your heart not be weary of it’.

Faulkner’s 1969 translation

‘This cold water of yours, O Osiris, this cold water of yours, O King, Has gone forth to your son, Has gone forth to Horus.

I have come and I bring you the Eye of Horus, That your heart may be refreshed possessing it; I bring it to you under your sandals.

Take the efflux which issued from you, your heart will not be inert, possessing it’.
The spell is divided in three parts. The first stresses that the water comes from Horus, seemingly restoring and cementing the bond between father and son – Osiris and Horus. The second part calls the water the ‘Eye of Horus’ aiming to make the deceased’s heart ‘radiant’ or refreshed by restoring what was lost through death. The third part emphasises that the water is the discharge of the deceased himself, ‘a reference to the deceased in his mythic role as Osiris (Assmann 2005:357).

If the deceased is Osiris, then the water poured out to him has flowed out of himself as Osiris. The water symbolises life force as a life-fluid that has flowed out of the deceased and is restored to him by means of the libation’ (Assmann 2005:357). The libation aims to bring the dead water, which is a life-endowing substance (fig. 24). In many tombs from the Old and Middle Kingdoms devices led the libation water offered in the cult room down into the sarcophagus chamber (Assmann 2005:357). This spell is immediately followed in the Pyramid Texts by another libation spell (Spell 33, [Pyr. 24-25]) in which the dead are united with the gods through water (Assmann 2005:357-358).

Fig. 24. Horus rejuvenates Osiris with water. From a bas-relief at Abydos. From Budge 1911:58.
Thus, it is a cyclical water world in which the libation is the life substance that originates from and returns to the god and, consequently, the pharaoh. ‘Divine bodily secretions of the gods, tears and sweat specifically, were then consumed by other gods and literally became self-sustaining substances. The god ate themselves’ (Meskell & Joyce 2003:95). The spell refers to the myth in which Seth killed Osiris and threw him into the Nile. The flood is made up of the exudation of Osiris’ corpse and the water of the inundation is described as ‘rejuvenated’ or ‘fresh’ water. The spell ends by connecting the dead with the water of the inundation is described as ‘rejuvenated’ or ‘fresh’ water. The spell ends by connecting the dead with the water of the inundation: in Egypt the inundation flowed from the pharaoh’s own body. ‘The water, life-fluid is returned to the deceased, life-fluid in your name “Rejuvenated-water”’. (Assmann 2005:358).

The Green and the Red Nile

How does the cyclical concept and belief in rejuvenation relate to the river Nile itself? Although the Nile flows throughout the year, it shows a significant variation with regards to both the amount and different colours of water. Although the two main branches of the Nile are usually called the White and the Blue Nile, these colour descriptions do not accurately describe the physical properties of the river during the inundation: in Egypt the river was green and red.

Early travellers were well aware of the changing colours of the Nile. The contrast between the Blue and the White Nile was remarkable during the flood: the Blue Nile was reddish-brown and the waters of the White Nile were yellowish-green (Hume 1906:55). The water of the Blue Nile was remarkably clear and limpid when the river was low, and it reflected the brilliant blue sky. But during the flood, it totally changed in character, becoming turbid and heavily charged with deposits and of a deep chocolate colour. The White Nile, on the other hand, contained little or no sediments, and had a greenish-grey colour throughout the year (Garstin 1909:137).

As the waters started to rise, Lyons noted, ‘the season of the lowest Nile is marked by the unusual greenness of the water, which has a marshy and putrid taste and smell, which boiling or distilling only increases’ (Lyons 1905:252). The green colour is due to large quantities of algae and decaying vegetation floating in the river. In May the White Nile supplies most of the Nile’s water and the river is green. In the marshlands of Uganda the White Nile also had a poisonous odour (Long 1876:285). When the Blue Nile started rising, flowing with a greater velocity, the green water was suddenly replaced by a muddy reddish-brown/red flood. In wintertime, the Blue Nile is almost clear, but during the flood period between June to October it is highly charged with alluvium and becomes reddish-brown (Budge 1912:169). When the Nile started to recede after the flood, the river again changed colour and became creamy-white (Lyons 1908).

The first Aswan dam was completed in 1902. Work on the High Dam at Aswan started in 1960 and was completed in 1971. Today, mainly because of Lake Nasser, only about 2 percent of the Nile’s water reaches the sea (Swain 1997:677, 680). Since the dam’s construction, the river’s changing colours and qualities are not visible in Egypt. However, one can still see the differences in the Nile water at the confluence of the Blue and White Niles in Khartoum, Sudan (figs. 25-28).

Until the White Nile reaches Khartoum, it is at a lower level than the Blue Nile, and there is a pronounced slope between them (Berry & Whiteman 1968:15). The Blue Nile reaches its seasonal peak flow in between July and September (Walch et al. 1994:268), and thus suppresses the White Nile’s flow. The White Nile is clearly green and smells whereas the Blue Nile is reddish-brown/red during the flood season. Importantly, the time at which these changes in colour took place was incorporated into Egyptian mythology.
Figs. 25-26. The confluence of the White Nile and the Blue Nile in Khartoum, early September 2006. The light-coloured water is the green hue of the White Nile whereas the dark-coloured water is the red-brownish hue of the Blue Nile, heavily charged with silt. Photo: Terje Oestigaard.
Fig. 27. The White Nile in Khartoum, early September 2006. Photo: Terje Oestigaard.

Fig. 28. The Blue Nile in Khartoum, early September 2006. Photo: Terje Oestigaard.
The rise is felt at Khartoum about May 20, and at Assuan about June 10, and the green water announcing this rise is seen at Cairo about June 20. About June 5 the Blue Nile begins to rise quickly, and it reaches its ordinary maximum by August 25; its red, muddy water reaches Assuan about July 15. Whence once the red water has appeared the rise of the Nile is rapid, for the Atbara is in flood shortly after the Blue Nile; the Atbara floods begins early in July and is at the highest about August 20. The Nile continues to rise until the middle of September...In October it rises again, and attains its highest level. From this period it begins to subside...’ (Budge 1912:172-173).

The Atbara River also has a reddish-brown colour during the inundation. Finally, the Nile goes through one more colour stage before it turns clear and blue again. When the Blue Nile starts to subside, the river turns a muddy white. The White Nile got its name from this fine, whitish clay that colours the water (Budge 1912:167). This whitish colour stems from the Sobat River, which is formed by two headstreams – the Baro and the Pibor – at the Ethiopian border. The Sobat is a major tributary to the Nile and joins the river above Malakāl in Sudan. The river’s length from the Baro-Pibor confluence to the White Nile is 354 km. The river has its flood season in November and December, carrying enormous discharges of whitish sediment, giving the White Nile its name (The New Encyclopædia Britannica, 15th edition). The flood of the Sobat River is delayed by the plains and marshes through which the Pibor flows, which are gradually drained after the summer rains. The river reaches its peak in December, which means that historically this water would reach Egypt in January and February. From then on the Nile waters would rapidly decrease (Lyons 1908:454, 459).

It is intriguing that the cycle of the changing colours of the Nile corresponds more or less to a human pregnancy with just minor deviations. The Green Nile reached Cairo in mid-June and the Red Nile would have arrived at the end of July or beginning of August. The White Nile being white reached Cairo in January or February; the nine months from June to February thus represent the full term of a pregnancy. The inundation started when Osiris was killed and Isis shed a green tear and fertilising star from heaven. Osiris was reborn through the funeral rites and exhumation. The Green Nile was the efflux (cf. Veldtsloot 1985:284-286). Gold and green stones were closely associated with water and water deities, and green and blue pigments were based on copper (MacKenzie 1922:140).

During the low period of the Nile, a sandy wind would dry the Egyptian land for a certain period before the cool winds from north began to blow. When the Nile was at its lowest, it took on a green colour and became the ‘Green Nile’. When the river started rising it became red as blood, and was seen as the ‘Red Nile’. When the river subsided it remained muddy and whitish for a time before becoming blue again.

The “Green Nile” was evidently of primary importance. Its greenness was the source and substance of life in human beings, in animals and vegetation. The Green Nile substance renewed life each year in the land of Egypt; it renewed life after death in Paradise. Blood and milk animated and nourished, but the green substance originated new life’ (MacKenzie 1922:160).

The green substance in the Nile was identified with malachite, which evidently contained the ‘germ of life’, used for numerous purposes in the religious cult. ‘The Green Osiris’ was to some extent a personification of malachite, the life-giver and renewer of youth. The ‘Green Nile’ flowed from the pools of heaven and vitalised the ‘Low Nile’ (MacKenzie 1922:160-161). In these ‘malachite pools’ or ‘malachite lakes’ the gods dwelt as birds, which were considered to be ‘Imperishable Stars’ animated by malachite (MacKenzie 1922:162). The stars are the source of malachite powder which drops like dew from heaven: ‘O you who stride out greatly, strewing green-stone, malachite, turquoise of (?) the stars, if you are green, then will the King be green, (even as) a living rush is green’ [Pyr. 567].

As a single teardrop from Isis brought forth the inundation and blessed all of Egypt, Isis has often been described as the mistress of the region of the Eye. Isis’ tears made the Nile swell, with three different stories explaining why she was crying. The most common is that she was so forlorn at the loss of Osiris that she shed a tear, which caused the Nile to flood (Mojsiov 2005:xx). A second story, popular among the Greeks, tells that the Nile inundation was caused by the tears Isis shed when she discovered that she was pregnant when Hapi arrived in the summer (Plutarch 65), and her tears turned to joy. Their child was born at the winter solstice with the sun’ (Mojsiov 2005:37).

Both of these descriptions fit the ecology of the rising Nile. The last explanation is more difficult to understand since, according to this myth, Isis’ tears fall into the water when she was sexually violated by her son Horus. Why this incestuous rape took place is hard to say, but it must be seen in relation to Seth, because nowhere is it mentioned that mankind came from the seed of Seth’s testicles (te Velde 1967:55). Mankind came forth from the sun’s Eye (CT VII, 465a), or in other words, the Nile. The water and river ideology were always superior to the absence of rain, and this water world turned into the Osiris mythology.

**Isis’ Tear and Osiris’ Exudations**

In Ancient Egypt green and blue would generally most likely have been described with the same word, while yellow was the same word as green. Throughout all periods, red tends to be brownish, while yellow tends to have an ochre colour. Blue is not found in the earliest materials and is introduced around 2550 BCE, while green/blue also means ‘fresh’ and ‘papyrus stem’. It may even denote the king’s ‘red crown’, which may be a way of avoiding red, which probably had negative connotations (Baines 1985b:284-286). Gold and green
Even today in Egypt, the summer night on which the Nile starts to rise is known as the Night of the Teardrop. ‘The fertilising star-tear that fell into the Low-Nile on the “Night of the Drop” was evidently a malachite tear. The Green Nile was made green with malachite from the god-pools of green malachite in the celestial regions. The Green Osiris of the Green Nile was...the personification of malachite. The celestial malachite in the Green Nile made vegetation green. It also made the dead “grow green again”’ (MacKenzie 1922:162). In the sarcophagus room in the tomb of Unas the stars are green. It seems that the theorising priests believed copper to be the ‘life of life’. The green god stone could be broken and burnt, but remained imperishable. Not least important, as the Green Nile turned red, so red copper came out of green malachite. The Green Osiris was another form of the Red Horus (MacKenzie 1922:162). ‘The discovery of metal in malachite must have seemed to them as great a miracle as Osiris was “Grain”...I am barley’ (op. cit Breasted 1959:22-23).

In the earliest versions of the Book of the Dead, the deceased says of himself: ‘I am Osiris, I have come forth as thou (that is “being thou”), I have entered as thou...the gods live as I, I live as the gods, I live as “Grain”, I grow as “Grain”...I am barley’ (op. cit Breastad 1959:22-23). With the Pyramid Text 589, the identification of Osiris with the Green Nile is complete; ‘Horus comes and recognises his father in you, you being young in your name of “Fresh Water”; Horus has split open your mouth for you’ [Pyr. 589] where fresh also means green water. Osiris is ‘the Green One’ whose life substance is the Green Nile. It is the Green Nile that makes vegetation green.

Vegetation is green, the Egyptians argued, because Osiris’ life substance is green. Because the Nile runs green the Mediterranean becomes the ‘Green Sea’ (MacKenzie 1922:155). ‘The “beautiful green disc” of the Egyptians, which symbolised creative power, existed in the primordial waters in the night of Eternity. The sun of the Underworld was green, and the newly-risen sun was red or golden’ (MacKenzie 1922:156). The mysterious green substance was the very essence of life (MacKenzie 1922:156). Moreover, the Eye is also described as green or being painted green:

‘I have come to my waterways which are in the bank of the flood of the Great Inundation, to the place of contentment, green of fields, which is in the horizon. I make green the herbage which is on the banks of the horizon, that I may bring greenness to the Eye of the Great One who dwells in the field. I take my seat which is in the horizon’ [Pyr. 508-509].

‘O my father the King, I have come and I bring to you green eye-paint; I bring to you the green eye-paint which Horus gave to Osiris. I give you to my father the King just as Horus gave you to his father Osiris; Horus has filled up his empty Eye [the eye torn out by Seth] with his full Eye [the eye-paint]’ [Pyr. 1681-82].

Traditional religions are often more concerned with ‘life’ than ‘spirits’ and they are therefore more ‘biocentric’ or ‘pantheistic’ than ‘theocentric’ (Morris 1998:211). Thus, the Green Nile had the original, procreative and all-encompassing life-giving power from which all life emerged and arose. All life has its origin in this green water. Sir J. Frazer tried to explain Osiris’ greenness in relation to corn, i.e. that Osiris was painted green to symbolise green corn. MacKenzie opposes James Frazer’s vegetation school and turns his argument around: ‘It was not the greenness of Osiris that the ancient priests had to explain when dealing with vegetation...the Egyptians believed the greenness of the corn came from the green Osiris. Osiris was essentially the river Nile. The Nile made Egypt green’ (MacKenzie 1922:154). This theme is also prevalent in the tale of the Eloquent Peasant: ‘Thou art like the flood (inundation), thou art the Nile that makes green fields and furnishes the waste lands’. Moreover, Osiris is yellow before he becomes green. On the bier he is yellow when he is dead, but after he is resurrected he reigns in the Underworld as a green god. In the Judgement scene on the Ani Papyrus, Isis and Nephthys have yellow hands and faces when they are standing beside the Green Osiris (MacKenzie 1922:151). The yellow or golden colour can be seen as the golden sun that is the source of the ‘vital spark’ (MacKenzie 1922:152).

The Green Nile does not last long, ‘but generally flows in three or four days, and it is only the forerunner of the real flood...In eight or ten days [the Nile] has changed from greyish blue to dark red, occasionally of so intense colour as to look like newly shed blood’ (Maspero 1903-1904b:29-30). The substances in the Nile which changed colour were obviously life-giving substances for the Egyptians, and as blood is ‘the life thereof”; the Red Nile was seen as the blood of the slain Osiris (MacKenzie 1922:156-157). The red hue, which is brought on by the oxide sediments during the inundations, has up to this day been compared with blood (Mojsov 2005:7). This is explicitly stated in the Pyramid Texts: ‘[... which issued from [...]’. The King is the blood which issued from Re, the sweet which issued from Isis’ [Pyr. 1263].

As indicated, this Red Nile was also believed to purify the land: ‘The canals are filled, the waterways are flooded by means of the purification which issued from Osiris’ [Pyr. 848]. During ‘The Great Hoeing of the Earth in Busiris’, there are references that the earth is hoed with blood. The companions of Seth changed themselves to goats which were sacrificed and the blood might be Seth’s because the mixing of the storm-god’s blood with the soil is not a unique example (Wainwright 1938:13). Rain-chiefs’ blood when sacrificed and killed have been mixed with grain and this seed was believed to gain immense fertility (Seligman 1934:30-31).

The efflux can also be interpreted as the secretion emitted by a decaying body – a foul-smelling liquid, which would be more brownish in colour than the red blood (Winkler 2006). If the efflux is this rotting bodily fluids it has precisely this physical resemblance to the Nile during the inundation. As mentioned, the Green Nile smells rotten or
putrefied whereas the Red Nile has a red-brownish colour, which may also have been seen as coagulated blood – the true efflux of Osiris.

Thus, death is the source of life, and the fluids that were lost at the moment of death were ‘returned to the body of Osiris is the act of offering’ (Winkler 2006:129). This is explicitly stated in the Coffin Texts: (Spells 94 and 96): ‘I am this great soul of Osiris whom the gods commanded to copulate with him… I have remade Osiris from the efflux which was in his flesh, from the seed which issued from his phallus at the going into the day that he might copulate with it. I am the son Osiris, his heir with his rank, I am the soul within his blood…’ [CT Spell 94], as well as in the Pyramid Texts: ‘Raise yourself, O spirit of this King! Your water is yours, your flood is yours, your efflux which issued from the putrefaction of Osiris is yours’ [Pyr. 1360].

The rebirth of Osiris was also part of the inundation; ‘..the cutting of emmer wheat has been performed twice; first to indicate the death of the god manifest in vegetation… and second the rebirth of the god, who gives to his people a plentiful harvest’ (Meyerowitz 1960:184 fn. 1). According to Plutarch, Isis realised that she was pregnant some time in October, and ‘…Osiris is buried when the sown corn is hidden by the earth, and comes to life and show himself again when it begins to sprout’ (Plutarch 65.1).

The White Nile of Milk

When the Red Nile had receded, the Nile changed character, and became white. The water came from the White Nile and was muddy and creamy. The whitish, muddy Nile has most likely been seen as milk. Nile waters flowed from the breasts of Hapi and in the cavern source of the Nile at Elephantine, from where the Nile was believed to have its origin, water flowed from what were seen as human breasts. The rare geographical figure jırw (3j) is the strict personification of the Nile as these words are the normal words for the river or a delta branch (Baines 1985a:112). The earliest fecundity figures, which are male, are found at the valley temple of the Bent Pyramid at Dashur. They are, however, broken, their heads are lost, and the iconography is aberrant. From the Fourth Dynasty onwards, fecundity figures are also found on royal throne sides. In the early period, fecundity figures apparently had no particular headdress, but later the figures wore long wigs, which is a divine characteristic. Moreover, fecundity figures are characterised by their long, pendulous breasts, which distinguished themselves from the breasts of normal or fat women through their pendulous character and the absence of pronounced nipples (Baines 1985a:85-93). Very few female fecundity figures or personifications are depicted, and those who are depicted are definitely fatter than average women. Three of the female depictions can be found in Sahure’s temple, and it is likely that there were other such representations in the same temple, but this practice seems to have ceased after the Old Kingdom (Baines 1985a:110-111). Before the New Kingdom there are only a few isolated cases of fecundity figures carrying food offerings as well as symbolic gifts (Baines 1985a:108). In the Old Kingdom, it was more common to depict more ‘secular’ offering bearers carrying a range of material gifts, whereas in mortuary temples these are symbolic (Baines 1985a:131).

Hathor is said to have created Nut, and Hathor was also regarded as the mother of Osiris (Pyr. 466) (Meyerowitz 1960:31, 44). Nut provided celestial milk – the milk of ‘the Milky way’ – and she had ‘long hair and pendant breasts’ (MacKenzie 1922:157-158). Finally, the white colour of the Nile is also seen as Isis’ nursing breast milk (fig. 29): ‘Raise yourself, O King! You have your water, you have your inundation, you have your milk which is from the breasts of Mother Isis’ [Pyr. 734]. The Nile’s life-giving waters were also believed to encompass divine breast milk (fig. 30): ‘The deceased, now reborn through the sky-goddess as a god himself, is subsequently breast-fed by divine nurses and elevated to the heavens’ (Assmann 1989:140). Libations symbolically represented divine milk, and the image of the ‘nursing of the child-god’ most likely had its origin in the royal coronation ritual or perhaps more correctly, as an initiation rite prior to kingship, which took place before the actual coronation (Assmann 1989:141).

The association of the White Nile with the goddess Isis’ breast milk was adopted by early Christian Copts, who called the star Sirius the ‘flood-bringer’ as it rose around the same time as the yearly flood (Gruber 2003:178-179). ‘Undoubtedly, some form of it antedates Christianity in Egypt when a pharaoh or his priest might have actually invoked the star and the subsequent flood’ (Gruber 2003:179). The feast of Epiphany which celebrates the baptism of Jesus takes place on January 19 (fig. 31), which in past times marked a great celebration around the river Nile. Moreover, as mentioned above, in Cairo the Nile turned white at the end of January with the silt from Sobat River, which had its flood peak at this time.

Before most festivals there is a period of fasting and abstinence. During the fast, no food or drink is taken between sunrise and sunset (Cannuyer 2001:107). The Feast of the Cross ‘was a procession from the Church that used to tour the village before ending at the Nile, or its nearest tributary, with the throwing of the cross into the river…there is little doubt that this festival related to the Pharaonic feast of the Bride of the Nile’ (Bishop Thomas 2004:985). Hence, it seems reasonable to interpret the galaktotrophousa or nursing image as a historic trajectory of Ancient Egyptian beliefs and more particularly the nursing Isis.

The galaktotrophousa plays a crucial role in Coptic Christianity. Galaktotrophousa means ‘she who nourishes with milk’ (Bolman 2004:1174). In Late Antiquity and Early Byzantine Egypt, the nursing period lasted normally two or three years. Children were usually not nursed by their mothers, but by wet nurses, which means that the image depicted in Coptic iconography does not represent mother and child intimacy (Bolman 2004:1176).
Clement of Alexandria described in the second century CE the Virgin Mary’s breast milk as coming from God, and more precisely Logos, since it has the same composition as the flesh and blood of Christ. The milk does not originate from the Virgin’s own body, because this blood is ‘liquid flesh’. The milk is, according to Clement, ‘the drink of immortality’ (Bolman 2004:1177). Following Clement,

‘What a surprising mystery! There is a single Father in the universe, a single Logos in the universe, and also a single Holy Spirit, everywhere identical. There is also a single virgin become mother, and I like to call her the Church. This mother, alone, did not have milk because, alone, she did not become a woman; she is at the same time virgin and mother, intact as a virgin, full of love as a mother; she draws to her the little children and nurses them with sacred milk, the Logos of nursling’ (op. cit. Bolman 2004:1179).

Heaven contained rivers of milk and honey, and milk was given as a reward to Christian martyrs. In Egypt, newly baptised infants were given a special Eucharist consisting of milk mixed with honey. Following the ‘Canons of Hippolytus’, the baptismal Eucharist should consist of milk and honey since it is the flesh of Christ which ‘dissolves the bitterness of the heart through the sweetness of the logos’. This understanding of the Virgin Mary’s milk as the nectar of immortality, also has a parallel in the Egyptian ‘History of Aur’, in which a family of wealthy magicians address and ask her: ‘deign to give us a little milk from thy breasts, so that we might drink it and never die’ (Bolman 2004:1179-80).

The images of the nursing Virgin Mary in monasteries may have had a political function from the seventh century onwards. While the Muslims claimed that Christ was simply a human prophet and not the divine Son of God, the iconographic message would have underlined the divine aspects (Bolman 2004:1181-82).
Fig. 30. The divine breast milk. From the Dendera temple. Photo: Terje Oestigaard.

Fig. 31. Timkat or the feast of Epiphany, Bahir Dar, Ethiopia. Photo: Terje Oestigaard.
Moreover, although this practice of using milk and honey in the baptismal Eucharist was never established in Syria and declined in Rome after the sixth century, it continued in Christian Egypt and Ethiopia in an unbroken tradition at least until the nineteenth century (fig. 32), and most likely into the twentieth as well (Bolman 2004:1179), emphasising ‘transference of qualities through substances or elements’ (Fowler 2004:112, original emphasis).

The Virgin Mary’s breast milk was not only used to nurse Jesus; the holy substance could cure any disease, including blindness. John Bakansi, a Cairene priest who was more than 100 years old, was blind in both eyes. In a dream he saw Virgin Mary coming out of a painting in the church, ‘And she drew nigh unto him and took out her breasts from inside her apparel, and she pressed milk out from them upon his eyes’, after which his eyesight was immediately restored (Budge 1933:47-48). In Upper Egypt, she cured a blind girl by sprinkling ‘upon her from her breasts some drops of milk of healing mercy; and straightway the eyes of the maiden were opened’ (Budge 1933:54). Her milk also cured a monk suffering from a cancer of the lips (Budge 1933:55). The most interesting aspect about the galaktotrophousa in this discussion is the close relation to Isis, and in particular the contemporary Christian interpretations that the breast milk – the life-giving water par excellence – was Logos. These were also the qualities which Plutarch described. ‘In the Soul [of cosmos], then, Mind and Reason (Logos), the guide and lord of all the best in it, is Osiris; and so in earth and air and water and heaven and stars, that which is ordered and appointed and in health, is the efflux of Osiris, reflected in seasons and temperatures and periods’ (Plutarch 49.3).

The inundation was truly the elixir of life, as evidently shown in depictions where the water flowing out of libation vessels is simply a chain of hieroglyphs for ‘life’ (ankh) (Assmann 2005:362). All these aspects and divine capacities and qualities are eloquently described in the Pyramid Texts: ‘You have your water, you have your flood, the fluid which issued from the god, the exudation which issued from Osiris’ [Pyr. 788]. Thus, the annual flood was the most important cosmogonic event in Ancient Egypt.
Chapter 5: The Pharaoh and the Flood

Sacrifice of Divine Rainmakers

In traditional African societies rainmaking has been a fundamental part of culture and religion. The rainmaker was responsible for the wealth and health of his people by controlling and providing the life-giving waters. Rainmaking has been an intrinsic part of societies with different complexity from hunter-gatherers to divine kingdoms. Rainmaking has closely been linked to ancestral worship and it was the forefathers and the deceased who provided the rain through the chieftain or the king as a medium. Thus, the rainmakers have tried to control and manipulate nature through both physical and non-physical interventions (Saetersdal 2009, 2010).

In order to understand the particular and peculiar character of a river ideology and religion, one may compare and contrast practices and beliefs with rainmaking traditions. At a structural level these two belief systems and traditions share some fundamental ideas, namely that the king is responsible for the wealth and health of his people. However, a river religion created a more stable ideology and a more powerful civilisation than kingdoms ruled by rainmakers, which is particularly evident among the Nilotic kingdoms along the Nile in Sudan.

In the entire world ‘the central practice of the sky- and fertility-religion is the sacrifice of the divine king, either in his own person or in that of a substitute’ (Wainwright 1938:7). The rainmaker most often faced a violent death if he could not provide sufficient water at the right time (Yuzbashi 1905). The rainmaker, who was normally the chief of the tribe, could also withhold the water as a political means to coerce people. ‘To take the life of a fertility-king at the appointed time and in the appointed manner is to offer the highest sacrifice; to take it before the time in any other manner, unless as a punishment for failure, is to commit the foulest possible murder, indeed to strike at the prosperity of the whole country’ (Wainwright 1938:64). Thus, among the Nilotic tribes of the Nile basin, the kings were closely associated with the welfare of the crops, herds and people. Shilluk kings were killed ceremonially when they showed signs of ill-health or senescence; Dinka kings were killed after a number of years at their own request or when they felt that they could not fulfill their function anymore. These rulers were truly Divine Kings. Even in those cases where the kings were not killed (Nuer, Lotuko), they were highly concerned with the welfare of crops and ceremonies to secure the rejuvenation of the king, in which human sacrifices played an important part. This bears strong resemblances to the Egyptian Sed festival (Seligman 1934:59), a festival which will be elaborated and discussed later.

In Equatorial Africa, the Bari people living along the Nile in Sudan commonly killed or severely punished the rainmaker if he did not produce sufficient rain or if it did not come at the right time (Spire 1905:19). Moreover, he could not only be killed if he failed to procure rain but also if the sun was shining too strongly. The whole ceremony aimed to ensure fertility and to banish diseases, as expressed in the following prayer: ‘Make that water (come) so that it may fall, so that these people may cultivate, so that also their millet may ripen, so that these people can be contented, so that the people may bear and produce and their wombs grow large’ (Seligman 1932:281). Among the Bari and Lotuko, the rainmaker king was the Master of Disaster. The king’s divinity was defined by his power to control disasters, which included the fertility of the fields, the health and wealth of humans and animals, epidemics, plagues, and safety from attacks by wild beasts, etc. (Simonse 1992:6-8). The relation between the king and his subjects was in equilibrium. The kings were believed to punish people collectively with drought and other ill fortunes while the people blamed the king for the disasters. Good rains and abundant harvests were seen as the work of the king (Simonse 1992:191). However, killing the rainmaker was the ultimate measure taken if disasters were prolonged, and a common rationale was: ‘He is killing us so why should we not kill him?’ (Simonse 1992:199). In 1981 a rainmaker was killed after he was accused of scorching the land by deliberately ‘putting the sun’. Four days after the rainmaker’s killing and burial, it rained heavily, but the drought returned (Simonse 1992:202).

‘The extent of a King’s power is determined by the reach of his clouds. Places where his rain or drought do not reach are per definition outside his power. As a corollary of a King’s rain fortunes his “clouds” may suddenly expand beyond the horizon, but they may just as easily contract. Rain careers were often ruined as quickly as they were built’ (Simonse 1992:249).

It is not only people’s disobedience which was thought to cause drought and low rainfall. The rainmaker could also threaten to stop the rain if his wishes were not fulfilled. However, if the king received gifts and his wishes were fulfilled, but the rain still did not come, then the accusations would bounce back to the king. If he demanded more, people would accuse him of being merciless and of blackmailing the community for his own interests. Thus, regicide was the only solution to end the drought (Simonse 1992:321-322).

‘[…] the rain continuously forces King and people to redefine their relationship. The power of the rain is not just an ideological superstructure, justifying and mystifying a power relationship. It is the subject matter of daily transactions by which the King and people test the
balance of power between them. The dramatic potential of the rain may be one of the deeper motives why Kings in the climatic zones of the tropical Africa depending on unpredictable rainfall are makers of rain’ (Simonsen 1992:331).

The power to control the weather makes the rainmaker a priest king who attains a divine status as a god incarnate here on earth. Consequently, he should not lose his powers as this endangers society. However, his powers can be renewed through magic as magic is part of the rainmaking process (Wainwright 1938:4). Ethnographically, the Nilotic rainmakers were ‘divine kings’ (Seligman 1932:23). Among the Shilluk, the whole cosmology was incorporated into rainmaking and the divine sphere, and in prayers: ‘you who give the rain. The sun is yours, and the river is yours’, stressing that both water and the sun were within the realm of rainmaking (Seligman 1932:75). Among the Dinka, ‘every rainmaker has immanent in him the spirit of a great ancestor who has come to him down the generations’ (Seligman 1932:195), and as such they were divine rulers and kings (Seligman 1932:196).

Among the Bari, the rainmaker was the most important community figure, and he could be killed if he did not provide rain (Seligman 1931:4). The Shilluk king was also killed when he showed signs of feebleness or ill health, but the Bari rainmaker held a different position in the community with respect to the divine Shilluk and Dinka kings (Seligman 1931:9, 14). The Shilluk Kings were not rainmakers as such, but ritual experts who prayed for rain. According to their beliefs, it was Nyikang, the ancestral god, who sent the rain, and the king had the power to ask the god for rain, but not to procure it himself (Schnepel 1991:56-57). The two most important annual worship ceremonies in which Nyikang played a central role were the rainmaking ceremonies prior to the forthcoming rain, and the harvest festival held when the rain ended (Seligman 1931:11). The Nile was the abode of Nyikang’s mother, Nyikaya (Schnepel 1991:47). Whether the Shilluk king was held responsible for famines, failure of crops and similar calamities and whether he should be killed because of this, was judged differently within the community. However, if the king did not do good for his people, it could lead to rebellions which eventually turned into a ritual regicide. Moreover, ritual regicide was practised if the victim or king consented (Schnepel 1991:45-46).

A striking feature is the violence involved in killing the rainmaker: it is a ritual ‘overkill’ (Baeverfeldt 2007). After he is killed, he is mutilated one or several times, which included opening the stomach (Seligman 1931:15). The details of rainmakers’ sacrifice and burial were very important. The bodies of Bari rainmakers who died of natural causes were submitted to a special treatment as soon as possible after death. The orifices of the body were blocked so that the rainmaker’s spirit could not escape. It was believed that such a spirit could transform itself into a lion or leopard that would threaten the community. The new rainmaker could in this way also control the spirits of his rainmaking ancestors. Following Mr. Whitehead’s account, ‘When the rainmaker is dead, he is plugged, his ears are plugged, his nose is plugged, his eye is plugged, his mouth is plugged, his fingers are plugged. And then he is buried. It is done thus so that…the spirits may not go out, so that the son may manage the father so that he obeys (him), so that the spirits obey the son’ (op.cit Seligman 1932:292). If a Bari rainmaker was killed after failing to bring rain, other procedures took place. Nigulö, a rainmaker of Belinian, was killed after the 1855-1859 famine because he was suspected of withholding the rain. He was stabbed to death, his belly was ripped open and his corpse left to the vultures (Seligman 1932:293). Similar treatments were reported in the Haddon MS when rainmakers were deliberately killed:

‘[f] a rain-chief has been killed because he has “hidden the rain” his corpse is dragged near to water, his face is smeared with mud from the river bank, his body slashed, and his stomach ripen open, and he is left to the birds and scavengers. His old friends can go to the murderers, and by payment of cows purchase permission to bury him. He is then buried as a commoner, the apertures and cuts being left open’ (op.cit Seligman 1932:294).

Among the Azande, the chiefs were particularly afraid of those who had learnt rainmaking from neighbouring people, fearing that they were as likely to hide the rain as to produce it (Seligman 1932:521), which would have fatal consequences. Thus, ‘willing the sun’ was such a heinous crime that the rainmakers who withheld the rain could be killed (Seligman 1932:295). Among the Lotuko, it was common practice for a living man from the Lomini clan to be buried with the rainmaker when he died. The person would be buried alive with his hands and legs tied together next to the dead rainmaker (Seligman 1932:339). Among the Malwal of Bahr el Ghazal province, the westernmost of the Dinka tribes, the rainmaker was laid on a bier in the grave after death. Here his elbows and knees were broken before he was strangled with a cowrope. It seems – although it was particularly difficult to obtain details as the district commissioner threatened the rainmaker’s son with hanging if his father did not die of natural causes – that the rainmaker was strangled by the son who was named as his successor. Thus, there are evidences which indicate that the forthcoming rainmaker had a prominent and active part in his predecessor’s death (Seligman 1934:22-23), which may have archaeological significance and consequences.

There are many similarities in the killing of rainmakers and divine kings. Kings were expected to commit suicide by taking poison when a disaster occurred or they had a natural physical defect such as impotence or infectious diseases, and Mashona chiefs could have their throat cut or be strangled if they were enfeebled by old age or sickness (Seligman 1934:30). Rev. S. S. Doran reports that ‘among the Varozwe (Varozwi, a Shona tribe) the custom of killing the king prevailed. Absence of bodily blemishes was considered absolutely necessary in the occupant of the throne…If he showed any signs of physical decay, such as loss of teeth, grey hairs, failure of sight, or impotency – in fact, any of the indications of
advancing age – he was put to death and a man was deputed to carry the resolution in effect’ (op.cit Seligman 1934:31). The health of the king embodied the people’s prosperity. Among the Jukun, the new sovereign sums this up when he says: ‘Our crops, our rain, our health and our wealth’ (Seligman 1934:41).

It is important to note that there was an intermediary period between the burial and the exhumation of the deceased king. During this period, it was still the deceased who was held responsible for rainmaking and droughts; the king-elect did not take up his duties before the former king was exhumed. ‘Throughout this period the power of the dead King is believed to be more important than that of the King-elect or the regent. In fact, as far as rain is concerned, the dead rainmaker continues to rule. Just as during his life his rule may bring either blessings or disaster, but the power of the dead King is believed to be greater than that of the live one’ (SimONSE 1992:386). The exhumation or the levelling of the tomb coincided with the end or beginning of a rainy season. The tomb had to be guarded during the exhumation so nobody would steal the rain. The king was believed to control the rain for at least one year after his death, and those who were closest to the king could be buried alive with him because the relationship was ‘so close that it could be broken only in death’ (SimONSE 1992:386-389).

The Shilluk royal death ceremonies took place only during the dry season, which in this part of Sudan lasted from October to April/May. The second burial, which was the main event, took place at the beginning and at the height of the driest seasons, either in October or January/February (Schnepel 1991:43). The period between the king’s death and the enthronement of the new king, which included the intermediate period and the second burial, was a time of danger – both politically and spiritually – for the whole tribe (Howell 1944:146). ‘The King’s power is believed to be most effective in the period following his death’ (SimONSE 1992:388).

This seems to be the case in Ancient Egypt as well where Osiris’ death was transformed into the forthcoming flood. Seth killed Osiris, but this was not enough and Osiris was dismembered into 42 parts, which became the names of Egypt and subsequently Egypt itself. This practice of dismemberment bears testimony to the older rainmaking practice, which corresponds with the ideology of Seth as the rain god. A common theme in the mythology and folklore of ‘The Fountain of Youth’ is the chopping up of the main character, upon which he is rejuvenated when the water of life is sprinkled over him (Hopkins 1905). Moreover, the deceased king contained the forthcoming flood, and consequently, his body as Osiris’ efflux was transformed into the inundation. His power was thus even stronger and more effective after his death.

Finally, the dismemberment or mutilation of the king’s body is a dangerous process since it also controls the forces of nature. In classical texts about Egypt by Herodatus, Diodorus and Pliny, there are several stories in which the king who tried to control the Nile and the storm was, or became, blind. One of the gods who preceded Horus was called ‘He who is without eyes’ (Wainwright 1938:76). ‘In fact blindness is the punishment for incompetence in dealing with the storm, and had Horus been more efficient in contending with Seth, he would not have lost his sight or part of it’ (Wainwright 1938:77). Among the Shillulk, when a medicine man was curing the evil eye, he took a sheep which he blinded with a red-hot nail. The patient was told that the blinding of the sheep and the burning of its eyes had cured him and that the person who had cast the spell would meet a similar fate as the sheep (Seligman 1932:99-100). Among the Bari there is a saying ‘the river follows people’, which emphasises the evil eye, because it signifies that the river or a spirit associated with it causes the disease (Seligman 1932:252).

The King of the Nile - The King as the Nile

Both anthropologists and archaeologists have emphasised the similarities between Nilotic kingdoms and the Egyptian civilisation. Simon SimONSE pointed out the striking similarity with Ancient Egypt: ‘In Egypt the dead and the living King ruled simultaneously. The dead King was equated with Osiris, who was responsible for the success of the agricultural seasons, and the living ruler was identified with Osiris’s son Horus. The motor behind the annual flood and the regeneration of the crops was the power (ka) released at the King’s death and equated with the divine power of Osiris, the dismembered King who was resurrected annually in the flood of the Nile’ (SimONSE 1992:397). From an archaeological perspective, Henri Frankfort argues: ‘The comparison of Ancient Egypt and Shilluk beliefs makes some problems connected with Osiris less embarrassing, since we can at least propose a solution by analogy’ (Frankfort 1948:200).

Kingship existed in Egypt before the pharaonic dynasties, but these kingdoms were relatively unstable as they adhered to a rain ideology. The transformation from a rain ideology to a river ideology made these kingdoms more stable and stability was the keystone of the transformation of kingdoms to civilisations (fig. 33). The Predynastic Egyptians were particularly associated with vegetation, the cultivation of crops, and the welfare of the land. The Scorpion macehead for instance depicts the cutting of an irrigation canal that allows the watering of the fields. Thus, one may suspect that the king would have been ceremonially slain after reigning for a number of years or when he grew old. Whether this happened is uncertain, but the Sed festival, which will be discussed later, rejuvenated the king’s power (Seligman 1934:52, 58).

Egypt’s climate favoured any kings who claimed divine power by controlling and predicting the flow of Nile (Bell 1971:20). With the unification of the Two Lands and the end of the Neolithic Wet Phase, ‘The magic powers of the rainmaker were irrelevant in the Nile Valley, where the life-giving water came from the inundation and not from the heavens’ (Aldred 1984:69).
Still, as Aldred argues, it is almost certain that the leaders used magic to ensure the Nile flood took place. This power came in hands of the king who was thought to command the Nile (Aldred 1984:69). Moreover, with the transformation of the Seth-ideology into the Horus-ideology, the sun cult did not necessitate sacrifices as demanded by the old religion (Wainwright 1938:65), ‘but the old forms had to be adapted to new conditions of dependence upon the Nile, not upon the rain’ (Wainwright 1938:71). Following Aldred again,

‘The prehistoric rainmaker chieftain who was thought to keep his people, their crops and their cattle, in health and prosperity by exercising a magic power over the weather, is thus transformed into the Pharaoh, able to sustain and protect the nation and having command over the Nile in a rainless land. The never failing inundations of the river were more predictable in their occurrences, though not in their volume, and therefore more amenable to control than the weather’ (Aldred 1965:50).

‘Egypt’ (Kmt) literally means ‘black land’, a reference to the silt carried by the inundation, and the two crowns were the ‘white house’ in Upper Egypt and the ‘red house’ in Lower Egypt. In order to understand the role of the Nile in the rise and constitution of the Egyptian civilisation, it is necessary to look more closely at the ritual tasks and commitments which the pharaohs had. Kingship as an institution is not basically a personified entity but a power analogous to the creator god, including both male and female elements (Troy 1986:132). The Egyptian worldview was characterised by duality. This duality was not contradictory, but represented the ontological composition of cosmos. Cosmos – order – was made out of Chaos – disorder. Stability is considered a key to understanding the world of the pharaohs. Disorder could never be lastingly tamed or solved, but order and stability could be maintained by the gods. It seems that the world as the Ancient Egyptians perceived it was a very fragile one, and it was the pharaoh’s role to maintain Maat.

The king’s divine nature has been much discussed throughout the history of Egyptology (Baines 1995a, 1995b). Thus, following Baines, ‘The king manifested on earth aspects of the gods, but he was himself a god only insofar as there was no term for a being intermediate between human and god…A being who could be deified was not a god like the other gods’ (Baines 1995b:9). With regards to kingship, the two extreme opposites in the debate have been seen as Frankfort’s Kingship and the Gods (1948) and Posener’s De la divinité du pharaon (1960).

Posener’s view can be summarised as such: ‘Kingship is a divine institution, in a way itself a god, or at least an image of the divine and capable of becoming its manifestation; each incumbent, each pharaoh, is fundamentally a human being, subject to humankind’s limitations’ (O’Connor & Silverman 1995:xv). Examples
from the wisdom literature show that royals had human weaknesses rather than divine strengths (Silverman 1995:52).

Frankfort, on the other hand, sees the pharaoh as a god. The king was commonly referred to as Horus, and the pharaoh is an incarnation of Horus the Great(est) god – Lord of Heaven (Frankfort 1948:40).

‘Better than any other feature of Egyptian kingship, it shows that the monarchy was conceived as a reality in the world of the gods no less than in the world of men. It is for this reason that we find a theory of kingship implied in a cosmological text. Nature itself could not be conceived without the king of Egypt...it demonstrates that the dual monarchy, centered in Memphis, realized a divine plan. The order of society as established by Menes is presented as part of the cosmic order’ (Frankfort 1948:33).

All humans – including criminals are ‘images of god’ as indicated in the Papyrus Westcar, but first and foremost it is the reigning king, who as the prime son of god represents the divinities, and from the Fourth Dynasty onwards the king was the ‘son’ of the sun (Hornung 1982:138). The king’s titles and epithets indicate that he was seen as a god, and according to his official titulary he was called a ‘perfect god’, indeed the ‘greatest god’ in the world (Hornung 1982:141). But despite all the titles, the pharaoh was not a god as such. His qualities and capacities differed greatly from that of the gods, and the king was without doubts inferior to the gods (Hornung 1982:141).

Throughout all periods the king was dependent on the gods, and the king could not dominate the gods. The king occupied ‘an intermediate and intermediary position between the gods and humanity, but in scale and context, representations of him connected him more obviously with the gods’ (Baines 1995b:10). Divinities gain their power intrinsically; kings receive it from the higher powers (Silverman 1995:63). Thus, the discussion as to whether the pharaoh was divine or not, or to what extent he was, is less relevant than emphasising his responsibilities in the cosmogenic religion. ‘For much of the Egyptian history, the monuments of the king and the elite presented kingship as the central institution of Egyptian society. In public terms, the king was more important than the gods’ (Baines 1995a:95, my emphasis). Following Baines again, although the king ‘is marginal to the world of the gods, yet through him they rely on this world and on human efforts to sustain them and the cosmos’ (Baines 1995b:11).

This places the focus on the king’s duties and religious practices in a universe that was in possible disequilibrium. The cosmic order was established at the time of creation, but this order could be disturbed because the forces of chaos were only subdued, not annihilated. Religion was centred on the maintenance of life, which, within this view of cosmos, was the responsibility of the pharaoh (Frankfort 1948:4-5). Hence, ‘…the unified state of Egypt, was never envisaged without kingship. From the beginning the king could have said with foresight “L’Etat c’est Moi”, except that such a sentence is impossible in Egyptian, which lacks a word for the state. This absence points to kingship as the nexus of society: there is no separate state’ (Baines 1995a:105). And in Egypt, the king’s most fundamental duty was to procure and secure the annual flood (fig. 34). The pharaoh was a fertility king responsible for people’s health and wealth in relation to agriculture, and he controlled the activities of the sky (Wainwright 1938:25). The king controlled and partook in the essence of natural phenomena, and he had the power and capacity to dominate and further natural processes, in particular the inundation. King Amenemhef referred to himself: ‘I was one who produced barley and loved the corn-god. The Nile respected me at every defile. None hungered in my years, nor thirsted in them. Men dwell (in peace) through that which I wrought...All that I commanded was as it should be’ (Frankfort 1948:57).

When there was too little water, it was the pharaoh’s responsibility through rituals to ensure a good inundation. In the Twentieth Dynasty there was so little water in the Nile that it was not enough ‘to cover the secrets of the netherworld’. Offerings were given to the Nile together with the ‘Book that Maketh the Nile Come Forth from its Source’, and two months later when the Nile started to rise, the offerings were repeated (Frankfort 1948:58-59). On the Nubian King Taharka’s stele a great flood is described in 683 BCE, which sums up the religious role of the pharaoh:

‘Now a wondrous thing occurred in the time of His majesty...His Majesty prayed for an abundant Nile...his father Amon-Re makes it reality...When the time came for the flood of the Nile, it began to increase greatly every day...The land was like an inert primordial Ocean, the banks could not be distinguished from the river...Everyone in Nubia was rich in everything, and Egypt was also plentiful...Everyone thanked the king...’ (op.cit Bell 1975:244).

As a comparative example, in China secular and spiritual authority were combined, but the spiritual authority was most important and dominated. The emperor had to prove his divine authority by military success and not least by avoiding striking failures and securing good weather, which guaranteed welfare and prosperity for his people, and finally, by maintaining peaceful internal order. In Egypt this would be to maintain Maat. These personal qualifications were turned into ritualism and then into ethics. ‘Thus, the Chinese monarch remained primarily a pontifex; he was the old rainmaker of magical religion translated into ethics’, Weber argues, ‘He had to prove himself as the “Son of Heaven” and as the lord approved by Heaven insofar as the people fared well under him. If he failed, he simply lacked charisma. Thus, if the rivers broke the dikes, or if rain did not fall despite the sacrifices made, it was evidence – such was expressly thought – that the emperor did not have the charismatic qualities demanded by Heaven’ (Weber 1968:31).
Fig. 34. The fertile Delta. Photo: NASA.
The official state cult served only the interest of the community (Weber 1968:173), and this was the situation in Egypt as well. The king produced food and prosperity by maintaining Maat, the cosmic order which allowed nature to function for the benefit of humans (Frankfort 1948:57). This divine capacity included the power to dominate and control natural processes, in particularly the Nile (fig. 35). The king was held responsible for both the failure and the success of the inundation. On the Kuban Stelae, it is said of Ramesses II, ‘If thou sayest to the water “Come upon the mountain”, the flood comes forth speedily after thine utterance, even as thou art Re in body’ (Blackman 1925:202-203, n. 5).

In the history of Manetho and the Turin Papyrus the sun god is the first king of Egypt and prototype of the king regardless whether he is called Ra, Khepri or Atum. Every pharaoh was recognised as the successor of the sun – the Creator. The pharaoh was Horus incarnate. The king’s accession was the time of sunrise. The Egyptians perceived kingship as an institution which involved two generations, best exemplified by Horus and Osiris. The king was a successor to Ra, but not identical to his father (Frankfort 1948:148). The king embodied gods as a pair, as opposites in equilibrium. Dualism is essential and fundamental in the Egyptian worldview where totality is an equilibrium of opposites (Frankfort 1948:21). This therefore links the living king in the form of Horus to Osiris as the dead king in the underworld. In the *Pyramid Texts*, the Nile is identified with the king or vice versa: ‘I have inundated the land which came forth from the lake, I have torn out the papyrus-plant, I have satisfied the Two Lands, I have united the Two Lands, I have joined my mother the Great Wild Cow’ [Pyr. 388].

The king is renewed by the river: *The fields are content, the irrigation ditches are flooded for this King today. There has been given to him his power thereby, there has been given to him his might thereby* [Pyr. 857]. Thus, the king ‘partakes of the essence of these natural phenomena…The king “produced barley”, not merely in an indirect way, for instance by caring for farmers or furthering agriculture, but through his own actions – by maintaining Maat, the right order which allowed nature to function unimpaired for the benefit of man. Hence the Nile rose effectively at the inundation so that the arable land reached its maximum extent and the people prospered’ (Frankfort 1948:57). The king had defeated falsehood and established Maat, and as a consequence there were abundant inundations in which the seasons – months and days and nights – followed in orderly procession. Plenty or famine were seen as qualities of the king. Hence, there is a fundamental link between controlling the flood and the king’s divinity (Bell 1971:21).
Finally, this embodied link between the pharaoh and the Nile extends beyond the living king to include the deceased king Osiris. If one looks at the land as Osiris’ body, then Egypt’s history can be read as the god’s biography (Mojsov 2005:111). The Nile is Osiris’ efflux. This places an emphasis on the life-giving qualities or the waters of heaven and the magical rejuvenation (fig. 36).

Helck has discussed a possible relation between the recorded flood levels and certain festivals (Helck 1966). The festivals were celebrated in harmony or as a consequence of nature and there were three seasons of four months each. First, Akhet or the ‘Season of Inundation’, which started with the annual inundation in June or July. Second, Peroyet or the ‘Season of Coming-Forth’, which could also be interpreted as the ‘Season of the Fields from the Flood’ and perhaps also as the ‘Season of the Sprouting Plants from the Earth’. The last season was Shomu or the ‘Season of Deficiency’ (of water) (Frankfort 1948:367).

The immanent forces of growth and rebirth in the earth are evident in the annual sprouting of vegetation, which could only take place after the inundation. During the harvest (fig. 37), the god who produced the grain was dying again. When the harvest started, the first corn was cut to the sound of wailing, a ceremony in which Isis was involved (Frankfort 1948:185-186). The harvest festival was dedicated to Min, the personification of fertility and a rain god – ‘opener of clouds’ – who personified the generative forces in nature and the abundant power of procreation in everything. Min was viewed as a form of Horus, and from the Middle Kingdom he was called ‘son of Osiris, born of the divine Isis’ (Frankfort 1948:188-189). Min was the harvest deity par excellence, and the king was the initiator, purveyor and sustainer of his country’s harvest. The Min festival was associated with the king’s coronation and the ‘Procession of Min’ was undoubtedly of Predynastic origin (Spalinger 1998:246-248). Min was intimately connected with kingship and was probably seen as an aspect of the king: ‘Min personifies the fertility of the fields, beasts and plants, and Egyptian kingship insured the benefits of nature’s abundance for society’ (Frankfort 1948:189).

**Floods and Famines**

Assuming that the king was intimately connected to the flood, Bell suggests that this may explain the many short reigns and the very large numbers of kings during the First Intermediate Period; kings were replaced when they failed in their mission (Bell 1971).

Ipuwer, who described that Egypt was afflicted by natural disasters, blamed the king for the current crises in society, but he does not mention what the king did wrong and probably he did not know. Nevertheless, since the king’s responsibility was to maintain Maat, disorder, famines and flood failures showed that he had failed (Bell 1971:21-23). Each year the king performed rituals to ensure that the flood would come and give prosperity to Egypt. This advent of King Merenptah (c. 1212 BCE) was hailed because ‘the water stays and fails not, and the Nile carries a high flood’ (Aldred 1984:69).

Thus, although descent was a necessary but not sufficient criterion for divine kingship, another criterion was the capability and power to sustain and maintain cosmos. This capability was proved by procuring the annual flood which enabled prosperity and welfare for the people. The absence of, or low, inundations proved that the king did not possess these divine qualities. Cosmological and political legitimacy was dependent on the Nile, and consequently, the king would not be a king if he failed in his divine mission, which was measured in the Nile levels.
Although there are several references to famines and plagues, and the land turning into desert, there are no direct laments about the flood levels. ‘In light of other inscriptions, indeed, we wonder if the Egyptians had some religious taboo, or at least a superstitious disinclination, about speaking critically of the Nile’ (Bell 1971:13). Moreover, ‘As to Pharaohs, being gods, they could be neither good nor bad, they were mere forces; though humans from their mortal angel, could look at them otherwise’ (Darby et. al. 1977b:530). Metaphors and euphemisms are also used to describe famines and the physical condition in Egypt in general, for instance ‘the hearth is healthy’, may further indicate the reluctance to speak plainly and directly of a failure of the Nile floods. Another striking fact is that Egyptian disaster literature never indicates that any god was concerned with, or responsible for, the famines and sufferings: ‘the gods are neither held responsible for the disaster nor prayed to for relief’ (Bell 1971:14).

This may indicate several aspects and characteristics of the Nile and its religious dimensions and relations to humans and gods. Firstly, the Nile is behind and beyond even the realms of the gods, which fits with a notion that the Egyptians lived in the real and imagined cosmic environment which existed at the very creation of the cosmos. The gods are also dependent upon this ontological reality from which everything originates, and will eventually return to. Secondly, these descriptions in the disaster literature where the gods are not blamed for the famines may hint at the nature of this cosmogonic religion. The gods were dependent upon the kings to secure cosmos. It was neither the gods who failed in their duty of maintaining and preserving the cosmos nor humans who were not obedient enough; it was the king as the medium linking humans and gods. Thirdly, one may also suggest that such crises and famines strengthened rather than weakened the religion, but only to a certain point. The pyramids at Giza were built during a period when the Nile declined, in what can be described as an ecological crisis (fig. 38), which will be further discussed in chapter 8. For common people it illuminates the importance of having a good king who ritually was able to keep cosmos in balance. This was obviously a double-edged sword, because it also revealed the brutal reality of having a king who could not maintain Maat.

The fact that the flow of Nile has always been irregular would have given the pharaoh the authority and divine arguments for being pharaoh and controlling the mere forces of the world and cosmos. This would in turn have engendered general acceptance for variations in the annual inundations. These continuously changing flood levels would most likely have shown the commoners the importance of having a pharaoh in charge and being responsible for maintaining the cosmos in balance. The imminent threats and instability of the world order were always present. Even though the pharaoh was the guarantee for prosperity through his divine origin and the successive rituals aimed at keeping the world and society in a static and prosperous state, the annual fluctuations of the Nile would have proven the high stakes which society faced.
Moreover, it would have proven the need of having the pharaoh or a divine representative on earth handling the cosmic threat of Chaos. But on the other hand, if the pharaoh failed year after year, which could probably have been the case during the First Intermediate Period, or on the contrary; too high floods, it was seen not just as the pharaoh’s personal or divine failure, but something which threatened the whole cosmos and allowed Chaos to overpower Order. In Ipuwer’s laments he says; ‘Indeed, the Nile overflows, yet none plough for it. Everyone says: “We do not know what will happen throughout the land.”’ Even during prolonged periods of drought there will now and then be normal or even high floods, but the general mistrust and lack of confidence may not stimulate the cultivation of the fields (Bell 1971:12).

This may explain the kind of anarchy Ipuwer described where people disregarded and disrespected social norms and conventions. If the kings failed to prove that they were in charge of cosmos and able to maintain it, how and why should commoners respect the laws laid down by the gods when the kings were unable to implement the cosmic order in this world?
Chapter 6:
Seasons, Ceremonies and Celebrations

Purification Rituals

Aylward M. Blackman has in a number of studies focused on Egyptian purification rituals (Blackman 1916, 1918, 1924, 1998a-g). Although it is difficult to say whether such rituals took place in the Old Kingdom, at least from the Middle and New Kingdoms onwards, the living pharaoh was purified in numerous ceremonies: (a) In infancy a purification ceremony was performed in early childhood which equipped the child for kingship. The ritual, which consisted of sprinkling the child with water, was not only a purification rite, but passed on certain divine qualities and vital force to the forthcoming king. (b) Before coronation the forthcoming king was purified in the Cool Pool and washed his face in the waters of Nun in which the sun god washed his face. Through this act he became similar to the sun god who was asked to see him as a son. (c) At coronation the purification was a renewal of the rite conducted during infancy. The god addressed the king: ‘I purify thee with the water of all life and good fortune, all stability, all health and happiness’, and the water was symbolised as ‘ankh’ signs. (d) Before officiating in a temple and entering the ‘House of the Morning’ the pharaoh was purified with water which also renewed life, and finally, (e) at the Sed festival it seems that in particular the king’s hands and feet were washed (Blackman 1998a:8-10).

After death, purity and purification were of utmost importance before the deceased pharaoh could enter the Solar or Osirian realm (fig. 39). The sun god Ra-Atum was supposed to be washed every morning before dawn on the eastern horizon. Horus and Thoth or Horus and Seth were his bathing attendants and the sun god was believed to be reborn through this act. Similarly, these gods were thought of as washing the deceased pharaoh before he ascended to heaven (Blackman 1918:117). The deceased king was not believed to be reborn through lustration, but was, like Osiris, revivified by the water. What I detest is faeces, I reject urine, I detest my own detestableness’ [Pyr. 127]. Hence, all purification rituals were concerned with life and rejuvenation, and the life-giving qualities of water were symbolised by ‘ankh’, the symbol for ‘life’. The water which originated from the First Cataract, the source of the Nile, was particularly pure and endowed with these powers. ‘Raise yourself, O king, gather your bones together, resume your members!’ [Pyr. 1360].

Purity also involved staying away from impurities in the underworld; ‘My mouth is pure, the Two Enneads cense me, and pure indeed is this tongue which is in my mouth. What I detest is faeces, I reject urine, I detest my own detestableness’ [Pyr. 127]. Hence, all purification rituals were concerned with life and rejuvenation, and the life-giving qualities of water were symbolised by ‘ankh’, the symbol for ‘life’. The water which originated from the First Cataract, the source of the Nile, was particularly pure and endowed with these powers. ‘Raise yourself, O king, gather your bones together, resume your members!’ [Pyr. 1360].

Achieving purity, which was necessary for the welfare of the deceased, included rituals performed during lifetime, spells, and ceremonies conducted by the gods and ceremonies performed by the living (Blackman 1998a:11-12). ‘The object of the ceremonies performed on behalf of Osiris was to furnish the god with never-failing supplies of vital force and so keep him perpetually rejuvenated, thereby securing a high Nile and a fruitful season’ (Blackman 1998a:13). The water did not only purify but brought together his bones and body, enabled him to stand and be possessed by the spirit;

‘Raise yourself, O King, receive your water, gather together your bones, stand on your feet, being a spirit at the head of spirits’ [Pyr. 858]. ‘May you cross over, O great Bull, to the green fields, to the pure places of Re’ [Pyr. 1359]. ‘I purify myself, I assume my pure throne which is in the sky, I will endure and my goodly thrones will endure, I assume my pure seat which is in the bow of the Bark of Re’ [Pyr. 710]. ‘The doors of the sky are opened, The doors of the firmament are thrown open for Harakhti, That he may ascend and bathe in the Field of Rushes’ [Pyr. 1411].

‘O King, your cool water is the great flood which issued from you’ [Pyr. 868]. ‘You have your water, you have your flood, you have the efflux which issued from Osiris’ [Pyr. 2007, 2031]. ‘Raise yourself, O spirit of this King! Your water is yours, your flood is yours, your efflux which issued from the putrefaction of Osiris’ [Pyr. 1360].

Thus, there are two different notions: either this is the actual fluids which are emitted by every corpse or the fluids come from the corpse of Osiris himself. When it is the exudation from Osiris, the juices are communicated to the dead through libations. In the later periods the term
'The god’s fluid in a vase’ is identical to the fluid which issued from Osiris (Blackman 1998d:75). Similarly a late description states ‘The god comes with body adorned which he has fumigated with the eye of his body, the incense of the god which has issued from him, and the odour of the fluid which has issued from his flesh, the sweat of the god which has fallen to the ground, which he has given to all gods…It is the Horus-eye. If it lives, the people live, thy flesh lives, thy members are vigorous’ (Blackman 1998d:76). Finally, in a Middle Kingdom mortuary text the incense is called ‘god’s dew’, but this term is not used in the Pyramid Texts. Following Blackman:

‘Under the form of libations it was believed that either the actual fluids that had run from it, or those of Osiris himself, were communicated to the corpse. In the case of fumigation with incense it is the latter of these two ideas that seem to have prevailed, namely that the body was revivified not by the restoration of its own exudations but by receiving those of Osiris’ (Blackman 1998d:78).

A striking feature is that the religious texts associate purity and cleanliness with the sun god, who is undergoing purifications in the Field or Pool of Earu or in the Field of Life. This purification seems to take place before the god appears on the eastern horizon (Blackman 1998f:183): ‘I go on the reed-floats of the sky which are before Re, bearing this jar of Re’s cold water which cleanses Upper Egypt before Re when he goes up from his horizon’ [Pyr. 1179].

The sun god’s main characterestic is ‘life’, which is generally interpreted as ‘good fortune’, ‘protection’, ‘stability’, ‘health’ and ‘happiness’, including his love for righteousness and hatred against wrong, and indeed it was believed that the god actually created righteousness and fed on it (Blackman 1998f:184-185). ‘Among a people who almost every day of their lives had reason and opportunity to take note of the fertilizing properties of the Nile, the belief would naturally enough have arisen that water not only cleansed those who washed in it of their impurities, but also imbued them with life’ (Blackman 1998f:185).

Life, birth and washing are all associated with each other: ‘I am bound for the Field of Life, the abode of Re in the firmament, I have found the Celestial serpent, the daughter of Anubis, who met me with these four rmst-jars of hers with which the heart of the great god was refreshed on that day of awakening’ [Pyr. 1180].

The Field of Life where the heart of the deceased pharaoh is refreshed is the Birth Place of Ra (Blackman 1998f:188).
Fig. 40. The sacred pool at Karnak. Photo: Terje Oestigaard.

‘The waters of life which are in the sky come, the waters of life which are in the earth come, the sky is aflame for you, the earth quakes at you before the god’s birth; the two mountains are split apart, the god comes into being, the god has power in his body; (so) the two mountains are split apart, this King comes into being, this King has power in his body. Behold this King, his feet are kissed by the pure waters which exists through Atum, which the phallus of Shu makes and which the vagina of Tefenet creates. They have come and have brought to you the pure waters with their father; they cleanse you and make you divine’ [Pyr. 2063-6].

The sun god was reborn through daily ablution and was thought to gain a new body each time. In the Book of Him, the discarded body of the sun god lies in the Underworld (Blackman 1998f:190). The king leaves the earth for the sky by ascending in a whirlwind of dust, purified through the Eye of Horus (e.g. Pyr. 308, 312). The ablutions which the divinities are said to give the deceased were naturally given by officiants who impersonated the gods (Blackman 1998f:190). ‘The water not only made the prince or Pharaoh pure like the Sun god, but it also endowed him with the solar properties of life, good fortune, etc., and equipped him for his position as representative or embodiment of the Sun god on earth’ (Blackman 1998f:192). The pharaoh was also believed to be reborn every day when he underwent lustrations. An inscription at Karnak states that the pharaoh is rejuvenated (Blackman 1998f:192-193), which is also testified in the Pyramid Texts; ‘And I am ferried over thereon to yonder side of the sky, To the place where the gods fashioned me, Wherein I was born, new and young’ [Pyr. 344]. In the words of Blackman again:

‘The living Pharaoh, therefore, was apparently believed to be reborn like the Sun god, whose embodiment he was, through the medium of water, - this same water being actually used for ablutions by the god himself, or being identified with the primeval ocean out of which he first came into existence. That the ablutions were constantly repeated is no obstacle to our accepting this interpretation of them. Repetition is a feature of sacramental rites, for the virtue imparted through them is liable to be impaired, and, therefore, needs frequently to be replenished. Moreover, was not the Sun god himself, the prototype of the Pharaoh, washed and reborn every day?’ (Blackman 1998f:193).

From the Predynastic kings of Heliopolis the king was seen as an embodiment of the sun god. The pharaoh was reborn through lustrations, like his divine prototype, and this rite took place at sunrise in ‘The House of the Morning’; ‘the regenerative lustrations undergone by the
king would have taken place simultaneously with those believed to be undergone by the god, a fact that would have made those of the king, who impersonated the god, seem all the more real and effective’ (Blackman 1998g:202), which is indicated in the Pyramid Texts as well, ‘This King washes himself when Re appears…’ [Pyr. 370]. The water used for this purification was brought from the temple’s pool sacred to the sun god and identified with Nun and the primeval waters (Blackman 1998g:205-206). Such pools exist at Karnak and Dendera among others (fig. 40).

The Flood and the Coronation

‘For an agricultural economy, astronomical knowledge as regulator of the calendar was of prime importance, he who could give a calendar to the people would be their leader’ (Needham 1954:189). The day, the lunar month and the solar year are three obvious ways of measuring time which were commonly used by most people and civilisations (Depuydt 1997:23). The civil calendar was the most used in daily life whereas the lunar calendar had a religious function. Although the Ancient Egyptians were renowned for their sun worship, the religious calendar was based and structured around the moon (Depuydt 1997:2). In nature there are many possibilities regarding cycles starting the New Year, including the equinoxes and sun solstice, but in the case of Egypt it was the inundation and the rise of the Nile. Every recurring renewal of life in nature can be seen as the beginning of a new cycle (Frankfort 1948:103). It was the Nile flood which determined the seasons and the years. Celebrations for what can be considered as the New Year’s festival were held in October or November when the fields emerged from the receding waters and ploughing and sowing could start (Frankfort 1951b:13).

For the civil calendar, the inundation was crucial and an astronomical time such as the heliacal rising of Sirius in July was of cosmic importance; ‘The fact that Sirius rises approximately when the Nile does only reinforces its role of marker of the inundation. The Sothic rising came to be viewed as the herald of the inundation’ (Depuydt 1997:14). The sun and the moon, and Sothis – the brightest fixed star Sirius, acquired a cult, and the latter as the herald of the inundation. From the early dynastic period, Sothis was worshipped as a cow, but soon became a manifestation of Isis in a similar way that Osiris was seen as Orion (Hornung 1982:80). In Egypt, where the inundation made the difference between famine and prosperity, New Year’s celebrations were co-ordinated with the Nile; they could take place in the early summer, when the river began to rise, and in the autumn when the waters receded from the fertilized fields’ (Frankfort 1948:314). Moreover, ‘rejuvenation’ refers to the mystery of cyclical time which returns to itself. In Egypt water and time were closely associated as the New Year started with the onset of the inundation during the summer, and indeed, the Egyptian word for ‘year’ meant ‘the rejuvenated/rejuvenating one’, which designated the inundation (Assmann 2005:359).

The death of a king was cosmologically dangerous because when he died, the malignant powers which threaten order were temporarily victorious (Wilkinson 1999:209). The coronation ceremony sealed the transfer of power to the new king. This was directly related to the seasons and the annual inundation, and only when the ceremonies had been concluded was the immediate threat of the interregnum overcome. Therefore, the coronation could not take place at just any time, and the most important ritual had to wait for some fundamental beginning and changes in nature. Since kingship was not merely a political institution, the coronation had to correspond with the cosmic events and the vicissitudes of the community, which were identical. Hence, the coronation had to coincide with one of the renewals of nature, which took place in early summer and autumn. ‘In the meantime government was taken over as soon as possible by the new king. This step we call accession. It took place at sunrise so that there might be the propitious consonance between the beginning of the new reign and the start of the new day under the rulership of Re, the father and prototype of kings’ (Frankfort 1948:102).

The coronation of the pharaoh was not an apotheosis but an epiphany. The pharaoh was a god, one who had descended among men (Frankfort 1948:5-6). The pharaohs executed the divine powers, or more precisely, they were the divine powers in a human form. During the coronation in the ‘baptism of the pharaoh’ (fig. 42), streams of vivifying ‘ankh signs were poured over the pharaoh’s head (Gardiner 1950:3). This type of representation dates back to the end of the Twelfth Dynasty (Gardiner 1951), although most are later. The baptism has been identified as both an episode in the coronation ceremonies and during the Sed festival in which the royal prerogatives were bestowed or confirmed, although it is not confirmed that the purification ceremony was held on the actual day of coronation.
Nevertheless, the ‘symbolic cleansing by means of water serves as initiation into a properly legitimated religious life’ (Gardiner 1950:6). At Deir el-Bahri in Luxor an inscription reads: ‘Words spoken: Be pure together with thy ka, (namely) thy great dignity of King of Upper and Lower Egypt, thou living (eternally)’, which makes the king’s ka identical to his office (Gardiner 1950:7). In one Karnak temple during the reign of Sethos I, the ultimate purpose of the libation was expressed: ‘I purify thee with life and domination, that you mayest grow young like thy father Re and make Sed festival like Atum, being arisen gloriously as prince of joy’ (Gardiner 1950:7-8). It was most commonly Horus and Thoth who poured the libation, but Horus and Seth are also represented in some depictions (Gardiner 1950:10). Even though it was actual water which was poured over the king’s head, this is depicted very rarely, but the outcome of the process was in some cases portrayed; namely the ‘ankh sign – the symbol for ‘life’ (Gardiner 1950:12). This seems to be both the quality and outcome of the water in the purification rituals, including death.

The time between the death and the interment has traditionally been set to 70 days based on Herodotus who wrote about the embalming and mummification process (fig. 43). However, the earlier periods, particularly the Old Kingdom, do not show that the intermediate period was 70 days. Instead several sources document this period as substantially longer. In the tomb of the Fourth Dynasty Queen Meresankh III the period between ‘the resting of her ka, her departure to the mortuary workshop’ and ‘her departure to her beautiful tomb’ was 272 days. In the tomb of the Fifth Dynasty vizier Senedjemib he recalls the burial of his father: ‘[I] brought for him a sarcophagus from Tura for this tomb of him, which I made for him within one year ‘and two thirds’, while he was in the mortuary workshop…’ (Wilson 1944:202).

The coronation sealed the transfer of power, and this took place only when the dangers of the interregnum had been removed. This directly relates to the Nile and the coronation could not take place at any time. Kingship involved cosmos and the progress of nature, or in other words, the flood. ‘Hence, the coronation was made to coincide with one of the renewals of nature, in early summer and autumn’ (Frankfort 1948:102). This could be New Year’s Day, which according to the Egyptian calendar was the first day of the first month of the ‘Season of Inundation’ (1 Thoth). It was on this day that the Nile originally started to rise. When the inundation started to recede four months later, there was a new beginning, and the first day of the first month of the ‘Season of Coming Forth’ (1 Tybi), was also a day of coronation. The new crops were sown and this day marked a rite de passage and a new beginning. This coincided with the Interment of Osiris on the last day of the month Khoiak, which was the last day of the month of the ‘Season of Inundation’.
Thus, the ‘late king was interred…just before the new king was crowned…On the day before the coronation the burial rites were concluded by a celebration of the dead king’s resurrection in the Beyond’ (Frankfort 1948:104, 110). It is said about Tuthmosis I when he indicated the coronation of Hatshepsut: ‘He knew that a coronation on New Year’s day was good as the beginning of peaceful years’ (Frankfort 1948:104). Moreover, as discussed earlier, the crown was called the ‘Eye of Horus’, and it contained the life-giving waters and in particular the annual inundation.

In the intermediate period before the coronation, the king travelled through the land and performed the Mystery Play of the Succession in certain towns (Frankfort 1948:103). The Mystery Play of the Succession was performed on the accession of Senusert I, and although the roll of papyrus on which it is documented dates back to around 2000 BCE, it contains many elements which date back to the First Dynasty. Since the pharaoh-to-be travelled to a number of cities, it is assumed that the play was performed on board the royal barque. Apart from the king, the actors included the royal princes, officials, priests and craftsmen. Throughout the play, there is a fusion between the king and the fact that Horus succeeded Osiris (Frankfort 1948:123-124). A central part of the play includes the myth in which Seth killed Osiris. The forthcoming king is Horus who has matured, and Seth’s harm is undone. Seth wounded and stole the Eye, but in the play Horus recovered it and regained his full strength, and it was the ‘Eye of Horus’ (fig. 44) which enabled the son to rejuvenate his dead father (Frankfort 1948:126).

The play also included the rising of the Djed pillar, which concluded the funeral rite ensuring the late king’s resurrection in the Otherworld (Frankfort 1948:128). After the coronation, Horus speaks to Thoth: ‘Put my Eye into their mouths so that it is acclaimed’, and in this last scene the ‘Eye of Horus’ is available as abundance and prosperity for the people (Frankfort 1948:138-139).

The rising of the Djed pillar (fig. 45) was part of the royal coronation rite, but it was also an annual event together with the Interment of Osiris, which

‘actively expressed its concern over the vicissitudes of a god whose “resurrection” – the rising Nile or the growing grain – was a prerequisite for its own welfare during the coming year. Moreover, these recurring celebrations of the revival of Osiris’ power in the earth obtained added significance if, in the preceding year, a king had died…The revival of these forces of nature were never more intimately related to the hope of resurrection; the expectancy and promise of prosperity, than when the erection of the Djed pillar was followed by the festivities of the new king’s coronation’ (Frankfort 1948:194).

The Djed pillar probably represents a mother goddess, and in particular Hathor, who is pregnant with a king or a god. A late text described Hathor as ‘the female Djed pillar which concealed Re from his enemies’ (Frankfort 1948:178). Thus, Osiris died, but he was reborn and rejuvenated with the flood. The flood water which Osiris brought or which emanated from him was called ‘pure water’ or ‘fresh water’ (Frankfort 1948:190).

The Sokar festival was closely associated with death and it was agriculturally based in the Osiris myth. The Sokar festival ended with the erection of the Djed pillar (Spalinger 1998:257). After the king had concluded the rites in the funerary complex he raised the Djed pillar (Uphill 1965:380). Osiris stood as the supreme pillar of prosperity and Isis was imagined as the fertile earth (Hornblower 1937a:155). Ptah or Geb was a male earth god and the harvest is ‘what the Nile causes to grow on the back of Geb’ (Frankfort 1948:181). The king of Egypt as Horus is ‘the seed of Geb’ (see Pyr. 466) and the genealogy of Geb, Osiris and Horus links the power in the earth with kingship.
The Interment of Osiris

The celebrations performed on New Year’s Eve and New Year’s Day, although they are centred around Osiris, are as much royal rituals as seasonal rites. On New Year’s Eve two ceremonies took place: the ‘interment of Osiris’, celebrating the sowing of the corn in the Nile mud which had fertilised the fields, and the raising of the Djed pillar. Particularly when a king had died in the previous year, the ‘interment of Osiris’ was especially intensive and indeed the last phase of the royal burial. ‘The god who was annually worshipped on this day by the people was now present in their midst, in the body of their late king which was committed to the earth. The raising of the Djed pillar represented, or, I should say, brought about, the rebirth of Osiris in the beyond’ (Frankfort 1951b:13). The next morning, on New Year’s Day, the new king who succeeded his father was crowned (Frankfort 1951b:13). Regardless of whether there was a coronation ceremony or not, on New Year’s Day two other rites were performed: the Circuit of the Walls (in Memphis) and the Union of the Two Lands. It was generally believed that
the first king of Egypt’s First Dynasty conducted both these ceremonies when he founded a new capital for his united Egypt (Frankfort 1951b:14).

The relation between royal and seasonal rituals lies in the nature of Osiris, who personified natural vitality, but not mere generative forces as in plants and animals. His power was larger and more specialised at the same time. ‘He was manifest in those forms of life which seem to emerge periodically from the earth: the growing grain; the moon and the constellation Orion which rose, as the Egyptians thought, from the earth and re-entered it at their setting; and also the water of the Nile, believed to well up from the earth in the whirlpools of the First Cataract’ (Frankfort 1951b:14). Still, Osiris was believed to be a dead king. Although kings succeeded each other on the throne, the same god was incarnated in each of them, and that was Horus, Osiris’ son and avenger (Frankfort 1951b:14). Hence, Osiris was thought to be a dead king at the same time as he was seen to impel the growth of grain and the rise of water in the Nile. These two independent notions of Osiris as nature god and Osiris as royal ancestor did not conflict. ‘On the contrary, it embodied the Egyptian’s conviction that kingship functioned on the cosmic as well as on the social level’ (Frankfort 1951b:14). When the water in the Nile decreased and the sowing of grain started, it was celebrated as the death or burial of Osiris. But since death belongs to the realm of Osiris, death was not seen as an antithesis of life, but rather a stage through which every living being has to pass in order to emerge reborn (Frankfort 1951b:15). Therefore, Osiris is not really a ‘dying god’ or a ‘dead god’. Osiris is forever living in the netherworld and on this side is his son Horus, the living pharaoh, occupying the throne (Frankfort 1951b:16).

‘While the relation of Osiris to vegetation remained alive in popular usages and in festivals of kingship, his association with the Nile flood was recognized by the main seasonal celebrations which followed the rise and fall of the river. The New Year was meant to coincide with the rise of the Nile: the great celebrations at the end of the month Khoiak coincided with the Nile’s subsidence and the emergence of the fertilized fields. When the Nile was at its lowest, Isis and Nephthys were said to bewail Osiris’ (Frankfort 1948:192).

On the last day of the Season of Inundation (30 Khoiak), the ‘Interment of Osiris’ was conducted. This ritual may have been more related to the sowing of grains than to the disappearance of water. The ‘Interment of Osiris’ had many similarities with the Nilotic god Nyikang. Both were former kings, both had given their people the elements of culture, both were concerned with the well-being of their people, and both influenced it from the Beyond. Nyikang was also incorporated into the successor king, just as Osiris was a part of Horus (Frankfort 1948:199).

Osiris’ drowning can thus be seen in different ways. On the one hand, it is a very concrete way of combining the fertilising powers of the flood with a god. When the Nile recedes to the deep channels, the earth loses its generative powers. Osiris is lost and dead or thrown into the river by the hostile Seth, who is the god of the hot desert. When the Nile returns, Osiris is ‘found’ in the Nile or on the ‘banks of Nedyt’. On the other hand, if one sees that Osiris is inherent in the earth, the drowning occurs when the Nile starts to inundate and cover the land, even though the water itself stems from Osiris (Frankfort 1948:192).

This may support the former interpretation that the actual disappearance of the Nile water corresponds with Osiris’ death. This interpretation is also strengthened by the ‘Interment of Osiris’, which took place on the last day of the ‘Season of Inundation’, when the Nile started to subside. When the water receded, it showed the diminution of the god’s power in one way, but illuminated the generative powers in another way. Life was to return in the form of bountiful harvests, and, according to the Dendera calendar, on the very same day as the Interment of Osiris, the Djed pillar was raised (Frankfort 1948:193). Hence, Osiris was reborn. The duality is simple: the king had to die to be rejuvenated, the seed corn had to be buried in the earth to produce harvest, and the Nile had to recede in order to return next year. Therefore, Osiris was defying death and through the transformation he secured further life and prosperity (Frankfort 1948:197).
The Sed festival

From a rainmaking perspective the Sed festival is of great interest (fig. 46). Among rainmakers, when the divine rainmaker showed signs of old age, sickness and his powers failed or waned, he could be killed. Thus, being a rainmaker was a dangerous double-edged sword. Not only could he be killed if the rain did not appear at the right time; he could also be killed when his strength faded and the community believed he no longer possessed the power to procure the life-giving waters from heaven (Seligman 1932, Simone 1992). In Egypt, on the other hand, when the pharaoh’s power and health started to decline, the Sed festival rejuvenated his strength: ‘It was a true renewal of kingly potency, a rejuvenation of rulership *ex opere operato*’ (Frankfort 1948:79). In theory it seems that it was first celebrated 30 years or a generation after the ascension to the throne. After the first celebration, the Sed festival was often held at intervals of two, three or four years, and some pharaohs celebrated the festival before 30 years had passed, which indicates that certain factors may have determined whether the festival should take place, such as the pharaoh’s health (Frankfort 1948:366-367).

The festival was usually celebrated on the same day as the coronation, on the first day of the first month of the ‘Season of Coming Forth’ (Frankfort 1948:79). Therefore, it is generally assumed that the festival was a revival of the king’s coronation, which restored and renewed his powers (Galan 2000:258). Thutmose III was referred to as having been ‘given life for ever’ (Uphill 1961:249). During Senusret I’s Sed festival, it was said that ‘He celebrates millions of Sed festivals appearing on the throne of Horus’ (Uphill 1965:368). It seems also that the pharaoh acted out his own funeral similar to the resurrection of Osiris, and the festival was concluded with rituals that included the raising of the Djed pillar, symbolising the king’s triumph over death (Uphill 1965:379-380). On New Year’s day, the pharaoh ‘was formally crowned at a moment which was regarded as the beginning of a new era, and this is most likely to have been when the land emerged from the primeval waters of the inundation – the appropriate time for the re-creation of the universe that each pharaoh initiated with his reign’ (Aldred 1969:78).

In contrast to the coronation, the Sed festival does not refer to Osiris, although the last five days of the preceding month – Khuiak – were days dedicated to Osiris mysteries. The aim of the Sed festival was henceforth to renew all cosmic relations between heaven and earth controlled by the throne, and not to emphasise ascension or succession to the throne (Frankfort 1948:79). The Sed festival was not a jubilee as a commemoration of the coronation. The Sed festival served to *renew and rejuvenate* the king’s power. As part of the subsidiary actions that took place between the main events before the king enters the robing chamber to change dress, two courtiers of the ‘Friend’ rank washed the feet of the ‘Great Ones of Upper and Lower Egypt’, pouring water from a vase shaped in the form of the hieroglyph meaning ‘Union’, which was used for the rite of ascension, ‘The Unification of the Two Lands’ (Frankfort 1948:83).

Creation involves a sacrifice in which a man is killed and the world emerges or is recreated from his body (Seidenberg 1983:192). It is a fundamental idea that a man cannot make a sacrifice without having a wife, because the act of procreation gave rise to the idea of creation, and all sacrifices are creations (Hocart 1929:105). However, there is no direct evidence that the king was sacrificed, neither in texts nor representations in sculptures (Murray 1914:17).

Hornblower argues that the Sed festival ‘was instituted in place of an older method of preserving the country’s prosperity which consisted in killing the king when his
powers waned’ (Hornblower 1937b:171). The king’s harem had a crucial role in the Sed festival in so far as the king’s power and strength were believed to rest upon his virility. Nevertheless, it is worth discussing some basic principles relating to First Dynasty burial practices, which will be elaborated in the next chapter, because it bears strong resemblances to the killing of rainmakers as previously discussed.

The fundamental idea underlying the sacrifice of the king is the belief that the god of fertility is incarnated in the king, and that the king’s health and strength guarantees the prosperity and welfare of the country. When the king’s power wanes, he has to be killed in order for the deity to pass on to a younger and stronger body. Murray puts forward the hypothesis that ‘the appointment of the new king was coincident with the death of the old, and that in the Sed festival we have the two events combined in one great ceremony’ (Murray 1914:21).

The origins of the Sed festival reaches back to the Predynastic period (Wilkinson 1999:212). The Narmer macehead’s composition is closely related to the Sed festival and seems to show the presentation of captives and booty to the king (Baines 1995a:118). The Scorpion macehead is more elaborate than that of Narmer. ‘The bottom register is divided by waterways into a kind of map. People work on the waterways and a boat sails on the water; the enclosed areas of land include two buildings rather like the shrine on the Narmer macehead and the one on the hunter’s palette, and a palm with a protective fence. The preserved decoration seems to be concerned with agriculture, fertility and the land, in the context of domination and the Sed festival’ (Baines 1995a:119). Hence, the Scorpion macehead from the end of the Predynastic period may testify to a royal ritual in relation to irrigation as the king is shown holding a hoe (Wilkinson 1999:216). An early First Dynasty slate dish may also relate the festival to an irrigation ritual, as it bears the inscription: ‘the opening of the lake “the striding of the gods” in Memphis’ (Hoffman 1980:313).

On a limestone vessel fragment from the southwest annex of Den’s tomb an inscription mentions ‘the second occasion of the Sed(-festival)’, which may indicate that the pharaoh performed two such festivals and indeed ruled for a very long time (Wilkinson 1999:75). Moreover, the Step Pyramid must also be seen in relation to the Sed festival. Parts of the pyramid complex are representations of buildings later depicted during the Sed festival: ‘[...] this was a rendering in stone for eternity of the double-throne dais covered with special canopy, and that this part of the Step Pyramid complex gave King Djoser the eternal setting for the Sed festival...the architecture of early royal tombs...provided an arena for the eternal pageantry of kingship as it was experienced on earth: the king as supreme territorial claimant, protected within his distinctive palace enclosure, the focus of rituals centred on his actual person’ (Kemp 2006:107). Hence, the Sed festival was apparently celebrated in the Old Kingdom when the king had finished building his pyramid and associated temples (Hawass 1995:250).

**The Annual Murder of Osiris**

Mythologically, ‘There is no evidence that the living King is ever regarded as the slayer of his father. His constant attitude, as a dutiful son, is one of veneration...It follows that Seth’s enmity to Osiris will derive from another source, and the obvious solution is his original role as the enemy of Horus’ (Griffiths 1960:21). The flood came annually, which implies that Osiris was killed, dismembered and rejuvenated each year by Horus (fig. 47). As seen in the Mystery Play of the Succession, the myth where Seth killed Osiris whereby Horus undid the harm was played as part of the intermediate period before the coronation (Frankfor 1948:123-124). Logically and as a consequence, this also implies that the feud between Seth and Osiris took place each year before the flood started to rise. Whether this event was only mythological or acted out ritually, is difficult to say, and as far as I know there are no textual evidences from the Old Kingdom indicating that there were actual rituals where Osiris or the pharaoh were symbolically killed by Seth before Isis shed the mourning and fertilising green tear, which was a sign that Osiris was dead and that the Nile would start to rise. However, the Ikhernofret Stela from Senusret III’s reign in the Twelfth Dynasty describes the experiences of a pilgrim to Abydos:

‘I celebrated the (feast of) “Going forth” of Upwawet, when he proceeded to champion his father.

I repelled the foe from the sacred barque (nSmt.), I overthrew the enemies of Osiris.

I celebrated the “Great-Going-Forth,” following the god at his going.

I sailed the divine boat of Thoth upon ... ....

I equipped the barque (called): “Shining-in-Truth” of the lord of Abydos, with a chapel..."

I championed Wennofer at “That Day of the Great Conflict;” I slew all the enemies upon the [flats] of Nedyt.

I conveyed him into the barque (called): “The Great” when it bore his beauty: [...] When they saw the beauty of the sacred barge, as it landed at Abydos, they brought [Osiris, First of the Westerners, lord] of Abydos to his palace, and I followed the god into his house....’

Thus, at least from the Middle Kingdom onwards, the Osiris mysteries were acted out as a play. As during the coronation, it seems that the Osiris mysteries took place on the Nile on a barque. Although this stela does not mention Seth’s killing of Osiris explicitly, the rest of the ritual indicates that it had taken place. When this pilgrimage took place is uncertain, but the intimate relation between mythology and ecology with an emphasis on the live-giving waters – which is what the feud was all about – suggests that it took place in late spring or early summer.
Fig. 47. Statue of Osiris, late period (ca. 664 - 332 BCE). Louvre Museum. Paris. Photo: CeCILL.
As the rain god who does not give any rain or life to the people, Seth was a hostile and dangerous character. His associations to the desert and barrenness together with the heat of the sun (Griffiths 1960:125) would have been the ecological condition during early summer when the Nile receded into deep channels and the fields were dry and infertile. Egypt would have been a dry and barren country in the hands of Seth, totally dependent upon the forthcoming Nile. Thus, seen from a water perspective, Osiris who fertilised and gave life to Egypt with the last flood was now dead, and he needed to be dead in order to return and once again be rejuvenated. Moreover, when Osiris’ body was cut into 42 pieces and distributed all over Egypt, this was the land which once again should flourish by Osiris’ efflux and the annual inundation. Therefore, as an ecological consequence, Seth could not disappear from the Egyptian pantheon because the mythological and cosmic drama unfolded each year, and the Osiris cult was the most important in Egypt. Thus, Seth had a double role. On the one hand, he killed Osiris and threatened society and the cosmos, but on the other hand, this murder was also necessary for the rejuvenation and recreation of the world.

Seth’s murder of Osiris was a prerequisite for the following flood, and this duality of life and death was fundamental in the Osiris mythology. Hence, the mutual dependency and interrelation of life and death worked at different parallel levels of myths, ritual and practical tasks – all within the same cosmological scheme in which the pharaoh was guaranteeing the stabilisation and harmony of society and cosmos – Maat. Nevertheless, despite the fact that it came annually, the exact date varied to some degree. More importantly, the length and height of the flood could never be predicted, but was meticulously documented by the Nilometers. Controlling this instability was the pharaoh’s responsibility, and it is in this context that the mortuary cult was of utmost importance.
Climate and Agriculture from ca. 5200-3000 BCE

‘Egypt may be the gift of the Nile; but Ancient Egyptian civilisation was the gift of the deserts’ (Wilkinson 2003:195). The oldest agricultural sites in Egypt are dated to ca. 5200-4000 BCE. These Neolithic sites are located in the western Delta margin and in the Fayum depression (Said 1993:185). Evidence of food production on the Nile floodplain occurs from the fifth millennium BCE. A farming community dating back to ca. 4750 BCE has been discovered at Merimde Beni Salama, although pottery dating to ca. 5500 BCE has been found at Fayum (Hassan 1997d:58). In Egypt around 4000 BCE, people lived as semi-nomads. Parts of the year they lived in the Nile Valley surrounded by the characteristic fauna, including hippos and crocodiles. Boats and the river were part of daily life. On the other hand, the eastern savannah represented a dramatically different environment (Wilkinson 2003:96). ‘People living – and dying – in the river’s floodplain around 4000 BCE were also spending periods far away from the Nile; and that can only have been in the dry grasslands to the west and, especially, east of the valley’ (Wilkinson 2003:98). The savannah would have given good prospects for hunting. The question is why they left the Nile with its abundance of resources. Was this not enough (Wilkinson 2003:98)?

‘For the Egyptians of 4000 BC, it seems, cattle were not merely livestock to be reared and exploited; they were creatures of creation, joined to humans in an intensely symbiotic relationship. This is the hallmark of a cattle-herding society, one that depends for its very livelihood on herds of domesticated animals. The welfare of people and cattle were inextricably linked. If the herds perished, so did the people...Cattle were esteemed members of the community’ (Wilkinson 2003:102).

In the Predynastic period rain fell on a seasonal basis over large parts of southern Egypt and in the Eastern Desert rainstorms came suddenly (Wilkinson 2003:43). Hence, the fertile Nile valley and the semi-arid savannah could both have given rise to the early civilisation (Wilkinson 2003:164-165). The hallmarks of the civilisation may have begun with the cattle-herders on the dry savannah in the south rather than among Nile Valley agriculturalists in the Delta (Wilkinson 2003:168). However, the Badarian culture, which is seen as the remote but direct ancestor of the ancient civilisation, arose within the valley several centuries before the savannahs became drier. Hence, a massive immigration of Saharan cattle herders cannot be the origin of Ancient Egypt. Although the summer rain became highly unpredictable from around 4000 BCE and made it extremely difficult for cattle herders, the immigration theory cannot explain civilisation (Wilkinson 2003:178-179). ‘But what marks out the Badarian people from their cattle-herding contemporaries in the Sahara...is their versatility. They did not have only limited contact with the Nile Valley, like the Saharan counterparts’, Wilkinson argues, ‘they actually lived in the Nile Valley for part of the year, fishing in its waters and growing crops along its banks. It was just as much a part of their domain as the eastern savannah where they hunted and herded. In other words, the Badarians bridged the two worlds’ (Wilkinson 2003:184).

In Upper Egypt, the Badarian culture was followed by the Naqada culture (c. 4000-3200 BCE) (Midant-Reynes 2000a, 2000b). During the 4th millennium BCE there were two different agricultural cultures in Egypt: the Naqada in the south and the Maadi in north (Bard 1994). A relief on a fragment of a large jar from the Naqada I culture dated to the mid-fourth millennium BCE shows a crown similar to the later ‘red crown’. The Naqada II wall painting in Tomb 100 at Hierakopolis, displays conquest and domination, which are central motifs and symbols of kingship. Kingship as a symbolic form may have originated in Naqada I, but not as an institution of kingship. The king must rule and not only reign. The reigning king often had divine qualities and controlled rituals, but his rule was not only spiritual. (Baines 1995a:95-99).

The Egyptian state has its origin in the Naqada culture in Upper Egypt, and by ca. 3050 BCE the Early Dynasty was firmly established (Bard 1994, 1999a). What is known as ‘Dynasty 0’ also took place around this time period (Bard 1999b). The emergence of the Egyptian state is particularly interesting, not only because it is one of the oldest, but the formation of the state seems to have taken place in the absence of the most obvious factors. The population was relatively small and the natural resources so abundant that it is hard to believe that competition for resources out of sheer necessity was a primary drive in the emergence of political domination. Trade was neither a major force, nor an external military threat (Kemp 2006:73-74). At the most basic level, political power is dependent upon economy, and hence, the control of the economy was crucial for the rulers of the First Dynasty. The resources were mainly of three types: human, agricultural and mineral (Wilkinson 1999:113). ‘The dynamic for the growth of the state seems in many instances to lie inherent within the very fact of settled agriculture and the population increase which this allows’ (Kemp 2006:74), or in the words of Erdman, ‘Agriculture is the foundation of Egyptian civilisation’ (Erdman 1971[1894]:425). The crucial principle structuring Egypt was ‘food for the country’ (Leibovitch 1953:110).
This is important because, as indicated earlier, agriculture became dependent upon the Nile rather than rain, which transformed society. The rainmaking religion was replaced with a river religion, and the inundation was Egypt’s economic backbone for successful harvests and prosperity. Thomas K. Park (1992) has argued that in riverine societies early stratification occurred prior to population pressure due to the very characteristics of flood recession agriculture. Compared to other types of agriculture, unpredictable floods favour the development of stratified systems. An economy of recession agriculture which is dependent upon a fluctuating flood creates a sharp distinction between riverbank lands, higher and rarely flooded land, the basic floodplains, and finally lands where only rain-fed agriculture is possible. If the inundation is low, large areas of land become marginal and uncultivated. Thus, a flood recession economy forms a type of common property where some have the right to exclude outsiders and exercise significant control over insiders. The weather and the world of water are chaotic and unpredictable, which implies that it is impossible to predict the future or forthcoming conditions. The variability of the flood has a major impact on the land that can be cultivated and consequently on production. On the one hand, a low inundation may flood little land whereas, on the other hand, a large flood may inundate more land than it is possible to cultivate. As a result, this type of economy favours social systems in which some people are given priorities over others since the availability of the best lands depends upon the volume of the flood, and with low floods some people will be marginalised. The chaotic quality of the flood and its regular range reinforce early prioritization or stratification in recession lands as well as the value of links to alternative means of production, Parks argues, because ‘the flood recession model suggests a dialectical form of causality. It is the relation between the initial social relations of production and the economic base that give rise over time to transformations in the social relation of production – the development of a significant degree of class stratification’ (Park 1992:107).

Moreover, John Wilson has argued that the Nile’s rebirth gave the Egyptians the belief that they also would conquer death and attain eternal life: ‘True, the Nile might fall short of its full bounty for years of famine, but it never ceased altogether, and ultimately it always came back with full prodigality’ (Wilson 1956:13). Thus, the characteristics of the Nile also formed the basis for Egypt’s religious beliefs. I will therefore turn to the religious and mortuary monuments and practices from the Early Dynastic period and the Old Kingdom.

The Unification of Egypt and the Narmer Palette

The emergence of the first kingship seems to have been an event which the Egyptians were very well aware of: they recognised a first king of a first dynasty – Menes (or Narmer) – who was preceded by an Upper Egyptian king, ‘Scorpion’ (Frankfort 1948:15-17). The strong institutional government of Menes or his immediate successors led to centralisation of all religious functions of the local chiefs together with their political functions into one person – the king (Blackman 1999e:117). Herodotus records (Histories II.99) that the Egyptian priests believed that King Menes diverted the river Nile and built the city of Memphis. ‘The perfect consonance between the new political and the established cosmological conceptions gave to his creation a compelling authority. A state dualistically conceived must have appeared to the Egyptians the manifestation of the order of creation in human society, not the product of a temporary constellation of power. It was in this respect that Menes’ victory differed from any other conquest which earlier kings, like Scorpion, had made’ (Frankfort 1948:19-20).

Both the red and the white crown seem to have originated in Upper Egypt. Although the red crown was in historic times associated with Lower Egypt, it appears to have its origin among Predynastic rulers of Naqada (Wilkinson 1999:192). The red crown is depicted on a vessel from Naqada, which probably dates to late Naqada I (c. 3600 BCE). This is by far the oldest occurrence of the red crown as royal regalia, and it may have been used by the local ruler. The white crown originated at a later date and appears in the late Predynastic period on two royal artefacts (Wilkinson 1999:49). The first evidence of the double crown may stem from a rock-cut inscription of Djet in the western desert, although normally it is attributed to the famous Abydos label of Den (Wilkinson 1999:196). The Narmer Palette indicates that the white crown was superior to the red since the king depicted with the white crown is considerably larger than when he is wearing the red crown. The presumed superiority of the white crown may lie in its close association with the royal line of Hierakonpolis, which played a crucial role in the unification (Wilkinson 1999:194).

The iconography of the palettes shows an important change by the end of the Predynastic Period. The Hunter’s Palette, as the name indicates, emphasises a hunt, and there is no explicit depiction of a ruler. This focus on hunting was replaced with warfare: the untamed forces of nature were controlled and dominated by the royal ideology under the king. The Narmer palette also indicates that during the fifth millennium BCE the cattle cult was fundamental in the transitional period (Wengrow 2001). On the Battlefield Palette, which is only a couple of generations older than the Narmer Palette, the theme is warfare, but still the ruler is depicted in animal form as a fierce lion. The last representation of the king as an animal is found on the Narmer Palette where he is represented as a wild bull trampling his enemy with his foot. Still, on the other side the king is presented in human form smiting his enemy with the mace, which is the quintessential icon of Egyptian kingship, and thus, the Narmer Palette is an amalgam of earlier and later royal iconography (Wilkinson 2000b:27-28).
Narmer, the founder of the First Dynasty, was buried at Abydos and his ceremonial palette recalls the unification of the Two Lands (Wilkinson 1999:3). The palette itself was found in the ‘Main Deposit’ at Hierakonpolis by Quibell in 1898 (fig. 48). The Narmer palette illustrates that ‘Victory is not merely assertion of power; it is the reduction of chaos to order’ (Frankfort 1948:9). With regards to the interpretations of the palette, there is considerable disagreement, and although much discussed in the scholarly literature, ultimately it might be unsolvable (O’Connor 2002). One reason is that some see it as a ‘proto’-language to hieroglyphs and consequently read the palette as text, whereas others read it iconographically (Fairservis 1991:4).

Nevertheless, one may approach this category of finds from different angles, which may reveal insights into the functions, uses and symbols. It is generally believed that one of the palettes’ functions was cosmetic and that they were associated with the preparation and application of cosmetics, in particular around the eyes, although neither traces of usage nor the cosmetic itself have been found on the palettes. Still, a general feature of the palettes is that one face features a circular area for the grinding or containment of the cosmetic. This area is surrounded by a raised border, which affirms the cosmetic function, as this border prevents the cosmetics – whether they were dry or liquid – from spreading to the rest of the palette (O’Connor 2002:8). With this as the point of departure, O’Connor proposes an interesting hypothesis, which will have implications for interpretations of the Narmer palette. He argues that the two sides or faces of the palettes were not of equal importance or significance, because the side or face with the encircled cosmetic area would have been the most important. Hence, he separates between a ‘primary’ and a ‘secondary’ face. This also relates to the use, because if used for cosmetics, the palette must have been held or laid flat, and the depictions on the secondary face would have been invisible or covered and automatically become the downward facing side. Moreover, since the Ancient Egyptians were highly occupied with purity and pollution, the secondary face would come in full contact with the hand or hands of the cult assistant. The secondary face of some palettes is not even decorated (O’Connor 2002:10).

This has implications for the Narmer palette. The main motif and face of the palette has traditionally been seen as the one on which King Narmer in full scale smites an enemy with a mace.
This is, however, the reverse or secondary side if one follows O’Connor, as the cosmetic circle with raised borders is on the other side. It is represented by the entwined necks of two ‘serpopards’, an Egyptological terminology for the mythological animal that has a leopard’s body and a snake’s head. If O’Connor’s interpretation of ‘primary’ and ‘secondary’ faces of palettes is correct, then the first register on the primary side had a special significance. On the ‘primary’ face where the cosmetic area is, there are depicted ten dead victims. A striking feature of the dead victims is not only that their heads are decapitated but, as Davies & Friedman (2002:243-6) recently have pointed out, nine of the ten dead have been further dismembered. Their penises are cut off and placed upon their severed heads, which were in turn placed between their legs (fig. 49).

Such a practice of further mutilating the dead has been described, as indicated, as ‘overkill’ (Baeverfeldt 2007). As discussed earlier, in other parallel contexts this practice has been seen as a way of blocking the life-giving forces and flowing processes (Tylor 1999, 2009). The rainmakers which Seligman (1932) studied in Sudan were also ‘killed’ again after they were dead. Thus, the practice as depicted on the Narmer palette may indicate that the sacrifice was within the realm of a rainmaking cosmology, which is further testified by the human sacrifices at Abydos.

First Dynasty and Abydos

According to tradition, the first major irrigation work was conducted by King Menes, the founder of the First Dynasty around 3000 BCE, who dammed the Nile somewhere near Memphis to protect the city. Moreover, the macehead of King Scorpio, the last of the Predynastic kings, depicts an irrigation work he supervised (Said 1993:188-189). The basin irrigation system was designed to capture the waters from the flood for the cultivation of a single winter crop. As early as the Old Kingdom there were attempts to enlarge the area of
land with the aim of producing two crops a year, which was possible in areas where the subsoil had a plentiful supply of water. From the Early Dynastic periods it is here the ancient capitals of Egypt were made; the finest subsoil water in Egypt was at Abydos; Memphis had a very good supply, and also Thebes had good subsoil. Good subsoil was a major force in wealth accumulation. One crop a year produced sufficient food supplies for the population, but not a substantial surplus (Said 1993:191).

The division of Egypt into nomes happened at some point before the beginning of the Third Dynasty (Wilkinson 1999:142). During the First and the Second Dynasties the sun god Ra was not as dominant as he became in the Old Kingdom (Baines 1995a:139), and Hornung has suggested that an evolution of the gods took place in the two first centuries of the third millennium whereby the gods were perceived and depicted in human form rather than as animals (Hornung 1983:263). Still, it seems that the situation was more complex as the gods could be seen in animal and human form or in a mixture of both (Wilkinson 1999:263). Nevertheless, the constitution of the Ancient Egyptian civilisation took place in the Early Dynastic period, and among others, Flinders Petrie has maintained that all the significant traits of Egyptian culture had evolved before the end of the Third Dynasty.

The Early Dynastic period includes either the First and the Second Dynasties or the First to the Third Dynasties. The construction of the first pyramid under the reign of Djoser is seen as a major turning point and development in Egypt’s history, and consequently starts the Pyramid Age, which today is more commonly described as the Old Kingdom. Culturally, however, it seems that the Third Dynasty had more in common with the two preceding ones than with the Fourth Dynasty, placing it within the Early Dynastic period and placing the start of the Old Kingdom in the Fourth Dynasty (Wilkinson 1999:60-61). The pharaohs of the three first dynasties were (Wilkinson 1999:27):

<table>
<thead>
<tr>
<th>First Dynasty</th>
<th>Second Dynasty</th>
<th>Third Dynasty</th>
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<tbody>
<tr>
<td>Narmer</td>
<td>Hetepsekhemwy</td>
<td>Netjerikhet (Djoser)</td>
</tr>
<tr>
<td>Aha</td>
<td>Nebra</td>
<td>Sekhemkhet</td>
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<tr>
<td>Djer</td>
<td>Ninetjer</td>
<td>Khaba</td>
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<tr>
<td>Djet</td>
<td>Weneg (Nubnefer)</td>
<td>Sanakhth</td>
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<tr>
<td>Merneith</td>
<td>Sened</td>
<td>Huni</td>
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<tr>
<td>Den</td>
<td>Peribsen (Sekhemib)</td>
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<tr>
<td>Anedjib</td>
<td>Khasekhem(wy)</td>
<td></td>
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<tr>
<td>Semerkhet</td>
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<tr>
<td>Qaa</td>
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The first Egyptian kings were buried at Abydos, and ‘It is usually an axiom of archaeology that treasure means trouble’ (Hoffman 1980:272). In 1899-1900 Flinders Petrie conducted a rescue excavation at the royal cemetery (fig. 50). Abydos had been plundered by tomb robbers as well as excavated by Amélineau before Petrie started his work, and very few bodies were actually left in the subsidiary graves (Hoffman 1980:276). According to Petrie, ‘It might have seemed a fruitless and thankless task to work at Abydos after it had been ransacked by Mariette, and been for the last four years in the hands of Amélineau...My only reason was that the extreme importance of results from there led to a wish to ascertain everything possible about the early royal tombs after they were done with others...to rescue for historical study’ (Petrie 1900:2). Despite the unfavourable conditions of preservation and the disturbances, this cemetery contained invaluable finds from the very constitution of the Egyptian civilisation. In 1921, Petrie conducted further investigations of graves at Abydos. About a mile from the Royal Tombs a line of graves from the First Dynasty was found, and Petrie organised excavations at the site. He found three great squares of graves belonging to the time of King Zer (fig. 51), King Zet and Queen Merneit (Petrie 1925:1).

The royal cemetery at Abydos is called Umm el-Qaab, the Arabic for the ‘Mother of Pots’ due to the richness of surface finds. Apart from the burials of the kings themselves, and more importantly from a cosmogonic water perspective, are the subsidiary graves. Petrie called the group of graves the ‘Tombs of the Courtiers’. They consist of three groups of brick-lined graves (Kemp 1966:13).

There are hundreds of subsidiary burials associated with each king in the beginning of the First Dynasty, declining to some dozens at the end of the dynasty. The courtiers were buried all at once because the brickwork was yet soft and had slipped down over many of the burials. The killing of the court upon the king’s death ensured the preservation of an orderly government. Nobody could survive the king, and everybody knew that (Petrie 1925).

The number of graves in the various subsidiary complexes varies, not only because the circumstances of the finds were difficult and the graves were plundered, but also because it was difficult to determine the exact number of graves. Petrie himself uses also another statistic in the later works when he included the graves which he excavated in 1921, and different authors have interpreted the original documentation in various ways and consequently operate with different numbers of the subsidiary graves. Hence, it seems difficult to approximate the number of persons who accompanied the kings when they were buried.
Fig. 50. Plan of the royal tombs at Abydos. From Petrie *Royal Tombs Part II* 1901: Pl LVIII.

Fig. 51. King Zer’s tomb with subsidiary graves. From Petrie *Royal Tombs Part II* 1901: Pl LX.
Fig. 52. The eastern, southern and northern walls of King Zet’s funeral enclosure. From Petrie Royal Tombs Part I: Pl LXIII.

Although this is unfortunate, and in the discussion different numbers will be referred to since various scholars have different interpretations, the conclusion is nevertheless univocal: massive human sacrifices were conducted during the royal funerals, which constituted the origin of the Egyptian civilisation.

Around each royal tomb, a large square pit is surrounded by rows of subsidiary graves (Petrie 1900:4). These great squares of graves enclosed large areas, which were probably used for ceremonies. The enclosure of Zer alone equals that of four of the Royal Tombs with all the subsidiary graves. Hence, if these enclosed spaces were used for ceremonies, they can be seen as an early stage of what later became the lower temple of pyramids in the Fourth and the Fifth Dynasties (Petrie 1925:3). Thus, to sum up: ‘The square of Zer, inside the walling, is 225 cubits of 20.53 in length, and in width 133.33 cubits of 20.79 inches, or else 135 cubits of 20.38 to 20.53; neither of these multiples is satisfactory, but 135 cubits agrees best with the 225 cubits. The square of Zet is of likely multiples, 200 cubits of 20.83 in length; in width 125 cubits of 20.13 to 20.77. The latter breadth agrees well with the length’ (Petrie 1925:3).

Aha’s mortuary complex comprises of a series of 34 subsidiary burials (Wilkinson 1999:234, Petrie 1901, pl. LIX). Djer’s mortuary comprises of 318 subsidiary burials (Wilkinson 1999:234, Petrie 1901, pls. LVIII, LX-LXI). In his 1925 publication Petrie refers to the whole complex including both the upper and lower cemeteries. Petrie sums up the subsidiary burials as follows: ‘The graves connected with Zer are 326 above and 269 below, total 595; of Zet 174 + 154 = 328; of Merneit 41 + 80 = 121 and a few lost; of Den 121, of Azab 63; of Semerkhet 69; of Qa 26’ (figs. 52-53) (Petrie 1925:3). Following Perie again, ‘What seems inexplicable is, when 326 graves were constructed around the tomb of Zer, where there was unbounded space on the desert, why 269 more graves should have been placed a mile away, and not with the others. Similarly for Zet there are 174 graves round his tomb, and 154 placed in the lower cemetery’ (Petrie 1925:3).
Fig. 53. King Den’s tomb with subsidiary graves. From Petrie *Royal Tombs Part II* 1901: Pl LXII.
Most of the graves had been plundered before he excavated them, and from the 269 graves of Zer, only 68 contained anything notable and 16 of these contained copper objects. Of the 154 graves of Zet at the lower cemetery, only 40 contained objects, and none of the 79 graves of Merneit had anything of value left. Only a few gold beads were found in one grave (Petrie 1925:2). According to Petrie’s own interpretation, those who were most intimate with the king were buried around him, where only those who were closest to the king could worship, whereas members of the court staff were buried on the edge of the desert in places that were open to all royal worshippers (Petrie 1925:3).

A noteworthy feature of Narmer’s alleged burial is its small size. Narmer is generally believed to have been buried at Abydos in a tomb consisting of two adjoining chambers B17 and B18, although some object to this interpretation that this is Narmer’s tomb. However, there are arguments in favour of placing Narmer’s tomb in these chambers. The twin chambers may be a part of a tripartite royal tomb complex, which Aha, Narmer’s successor, had built. If Narmer’s tomb originally only consisted of two chambers, then Aha’s mortuary complex may represent different stages of the building process. On the other hand, if Narmer’s grave consisted of three chambers, then Aha’s tomb could have been a direct copy of Narmer’s. Another noteworthy feature is the close proximity of three sets of twin chambers in this part of the cemetery: one is interpreted to be Narmer’s, and the other two are ascribed to the late Predynastic kings ‘Ka’ and Iry-Hor. All three mortuary complexes are located on a line running NE-SW, which is the same arrangement Aha’s grave follows. Therefore, one hypothesis is that these three sets of burials form the mortuary complex of a single king. If this is correct, the most likely candidate for this mortuary complex would be Narmer (Wilkinson 2000b:31).

A striking feature of the burial of Narmer compared to that of Aha and the kings who succeeded him in the First Dynasty is the absence of any subsidiary or retainer burials. The average age of those who followed Aha in death was under 25 years, which strongly suggests that they were killed or committed suicide as part of the king’s funeral. The absence of any subsidiary graves in Narmer’s burial has parallels to the former Predynastic funerals (Wilkinson 2000b:31).

Those buried at the lower cemetery were not of an inferior class. One of the graves bears the female name Mer-nesut with labels bearing the name of Zer. A great ivory comb of Zet as well as large royal copper tools bear evidence that important persons were buried in the lower cemetery and it seems that numerous officials were buried here. Hence, there is a difference between the upper and lower cemeteries. Nearly all the steles from the tombs around King Zer have female figure determinatives, which suggest that those buried around the king belonged to the harem or were intimate servants. In the lower cemetery it seems that palace officials were buried. This interpretation may be correct, but it does not explain why two cemeteries were built for Zer (Petrie 1925:3). Following Petrie, ‘The nature of this cemetery is scarcely yet explained. It is obviously like the squares of graves around the Royal Tombs, and these burials of court servants are alike in both sites’ (Petrie 1925:2).

Apart from the question of the two cemeteries, it is important to determine whether some or all of those buried were ritually killed prior to, or as part of, their funeral. The number of graves is too high for those buried to all have died a natural death. There are several indications that they were ritually killed and buried a short time after the king died or as part of the royal ritual itself. More than 20 men between the ages of 20 and 30, or under 25 years, were buried in Aha’s tomb, a group too uniform to have died naturally (Baines 1995a:106). Moreover, there are clear evidences that many of the dead were buried alive. Petrie’s description of the burials will be important for later analyses of ritual practices. With regards to the subsidiary graves of Zer he writes (fig. 54):
'In [grave] 537 the position is most peculiar; the heels have been tied tight back to the hips to prevent action; the body was thrown in, chest down, over a large boulder in the soil; the head has been twisted round upright, and at right angles to the spine literally; the left arm has been thrust up from below with the hand before the face...the skull rested truly on the atlas vertebra, and that all the vertebrae of the neck were in articulation down to the straight line of the spine. The double twist of the head at right angles was entirely made while the body was fresh...the position proved that this man had been endeavouring to raise his head above the earth as the grave was being filled...544 is another example suggesting, by the outstretched fore-arm, and the other hand outspread, that there was some consciousness at burial' (Petrie 1925:8).

This pattern is also similar in the burials around the tombs of Qa and of Khasekhemwy. One feature which caught Petrie’s attention were the walls built of soft bricks and in a hurry, and the burials of the courtiers took place within a few days. In the words of Petrie,

'This hasty burial of a large number of bodies at one time showed that the persons had been intentionally killed at the funeral of the king. The burials now described confirm this by evidence that some were partly conscious at burial. From the absence of any broken bones, and the signs of partial consciousness, it seems likely that they were stunned (perhaps by a sand-bag) and buried before coming to. This would be the most rapid and painless death possible' (Petrie 1925:8).

Semerkhet’s tomb, however, showed a change from the previous generations. The subsidiary burials were arranged next to the main burial chamber, and the location may indicate that these burials could have been covered by the same superstructure as the king’s. This strongly suggests human sacrifices. The dead in these subsidiary graves were most likely the king’s retainers and probably also women from the harem. Since they were buried at the same time as the king, they must also have died more or less at the same time and at least before the funeral was closed, and hence, this suggests ritual killing was part of the ritual. Qaa’s tomb followed the same plan as that of his predecessor, which then also suggests the practice of retainer sacrifice (Wilkinson 1999:80). Thus, numerous human sacrifices took place in the royal cult throughout the First Dynasty, although one cannot say that all those who were buried in the subsidiary graves where sacrificed during the kings’ funerals. Nevertheless, this practice would have ensured not only that all the servants were loyal and faithful to the king, but also that they would have defended the king from outsiders by any means, including their own lives (Petrie 1925:8).

Second and Third Dynasties

The history of the Second Dynasty rulers is little known and obscure, with regards to both the order and number of rulers. There might have been internal tensions during the middle of the dynasty since Seth appears in the royal titulary under Peribsen. The power could have been divided between kings in the north and the south, and as documented on the Palermo stone, the significant lower inundation as a consequence of ecological factors may have been important in the apparent tensions (Wilkinson 1999:82-83). This is also evident in the royal titularies.

The burial of Hetepsekhemwy broke with the royal tradition of being buried at Abydos, and the relocation of the royal funerals to Saqqara represents a fundamental change. Moreover, the architecture of the royal tomb was entirely new, and these changes must have had a historic importance, although it is difficult to say exactly what (Wilkinson 1999:83). Peribsen chose to replace the Horus-falcon surrounding the serekh with the Seth animal, and he was buried with the kings of the First Dynasty at Abydos, but his mortuary cult seems to have taken place at Saqqara. It is possible that he descended from the First Dynasty’s royal family, but he may as well have intended to attest legitimacy, and these changes may suggest new developments in the ideology of kingship as well as religion (Wilkinson 1999:89). The town Sethroë in the northeastern Delta was in later times known to have been the cult centre of Seth. Hence, although not proven, the town could have been part of Egypt and Peribsen may have established the Seth cult during his reign, with the consequence that he must have ruled both Upper and Lower Egypt (Wilkinson 1999:89-90).

Khasekhem(wy) was the last of the kings in the Second Dynasty. At the beginning of his reign he adopted the Horus name Khasekhem, which means ‘the power has appeared’. Later he added the Seth animal and changed his name to Khasekhemwy; ‘the two powers have appeared’. Of special interest is the fact that the Seth animal on the top of the serekh wears the red crown whereas the Horus falcon wears the usual double crown. Khasekhemwy was buried at Abydos in a mortuary construction in which both design and symbolism point toward the Step Pyramid (Wilkinson 1999:91-93).

In the Third Dynasty five rulers are recorded in both the Abydos king list and the Turin Canon, but there are difficulties in the correlation of both the names and the order. However, the archaeological evidence favours Netjerikhet (Djoser) as the first king of the Third Dynasty and hence Khasekhemwy’s direct successor. The equation of Netjerikhet and Djoser does not appear on any contemporary material, but appears on the much later Sehel Famine Stela. Importantly, the first pyramid, the Step Pyramid, was built by Djoser (Wilkinson 1999:95-96).

Thus, the ‘Pyramid Age’ started with Djoser, and this tradition became a watershed in the history of Egypt and the world, but in the transition from the Third to the Fourth Dynasty another major invention took place. The Fourth Dynasty is most famous for the pyramids at Giza, but this dynasty or perhaps the Third Dynasty, represents also another watershed in history; namely the construction of one of the first dams in the world (Fahlbusch 2009).
Dams: The Useful Pyramids?

Dams have been seen as the useful pyramids (Schnitter 1994), which implicitly hints that the constructions of such massive monuments as pyramids were not useful. But what if the ultimate aim was the same as with dams: procuring and securing water?

The remains of what is one of the oldest dams in the world were discovered by Schweinfurth in 1885. It is situated in a dry riverbed, Wadi Garawi, at Sadd el-Kafara, also known as ‘the Barrier of the Pagans’, located in the eastern desert some 30km south of Cairo. Ernest Mackay found several pieces of pottery in an enclosure in the vicinity, which is probably related to huts which accommodated the builders or users of the dam. The form of the pottery remains was characteristic of the Third and the Fourth Dynasties. No pottery of later date was found in the vicinity (Mackay 1915:39, Petrie & Mackay 1915:38, Hellström 1952:424).

It is estimated that it took 10-12 years to complete the dam, which was constructed to absorb temporary flood waves (Garbrecht 1985). Murray measured the dimensions of the dam. The length of the crest of the dam was about 108m and the height from the lowest point in the riverbed was about 12m. The construction consisted of two separate dams with loose stone filling. Each of these was about 24m thick at the base, and the space between them at the ground level was approximately 36m. This space was filled with a combination of shingle from the wadi bed together with rubbish from the hillsides. This meant that the total width of the dam base was no less than 84m. Hence, it was a colossal architectural construction ((Murray 1947, Hellström 1952:424). ‘The upstream face of the dam consisted of blocks of limestone laid step-wise…At the abutment on the right bank there are 32 steps, each about 0.30m high and the slope face is 3 (vertical) in 4 (horizontal). The stones are laid dry, i.e. no mortar was used between them’ (Hellström 1952:424).

An approximately three-kilometre path from the dam led to a large alabaster quarry situated at the head of the valley (Mackay 1915:39). Most likely the blocks of alabaster were brought to the mouth of the valley, either pulled by donkeys or swung from poles carried by men, because the path was in several places very narrow, making it impossible to use sledges. The river could have been used to transport the blocks in parts of the season, but this seems more unlikely since then the blocks would have had to be lifted right over the dam at the end of the journey or up to the level ground of the ravine’s southern side (Mackay 1915:40). The purpose of this dam is as intriguing as the huge size and early dating.

Murray (1947) estimated that the capacity of the dam would have been about 575,000m³. Based on a comparison with the rainfall today, which he saw as quite similar, during the period from 1904-1944, there were 29 rainfalls with 10mm or more on a single day, and 10 cases of more than 20mm rain. The catchment area is 185km², and a natural runoff of 1mm corresponds to a volume of 185,000m³. With a rainfall of 20mm, which occurs about 10 times within a 40-year span at Helwan, 8mm would have been absorbed immediately, and a quarter of the remaining would have created some 500-600,000 tonnes of water flowing through the wadi, filling the reservoir and causing the dam to overflow (Murray 1955:174).

After the first heavy rainfall the dam would have filled up and intriguingly, the dam collapsed. There are no traces of silt deposits, which mean that the dam must have broken immediately after construction. This disaster must have had a severe impact on the Ancient Egyptians’ ideas of taming the waters. After this, there were no attempts in Egypt to build dams until 4500 years later; the failure of this major project would not be easily forgotten (Hellström 1952:430, Garbrecht 1985).

‘The first dam in history is clearly a major engineering achievement. But it is also something of a disaster story. Dating back to the age of the “Pyramid builders”, and estimated to have been between 10 and 15 years in the making, Sadd Al-Kafara was destroyed by heavy rainfall soon after its completion. The experience was so traumatic for the Ancient Egyptians, that they never tried to build a dam again’ (Kamil 2004).

The reason why this dam was built is uncertain. Schweinfurth surmised that the purpose of the dam was to provide fresh water to the workers at the alabaster quarry upstream of the dam (Hellström 1952:424), but such a monumental construction providing water only for quarry workers does not seem very convincing. Fahlbusch has proposed another interesting hypothesis. During the Old Kingdom huge stones for the monument building were transported on sledges over damp mud roads made of sediments from the Nile, which is also testified on a papyrus. The transport of huge alabaster blocks to the Nile would have necessitated a mud road approximately 2m wide and 50cm think, and the dam can have been built for this purpose, although the water necessary to construct such a road would only amount to about 10% of the dam’s reservoir (Fahlbusch 2009).

Building Pyramids

Leif Gren wrote: a monument was the answer, but what were the questions and the problems it solved (Gren 1994:95)? In the Egyptian setting, what problems did the pyramids solve? It is wise to believe that these monumental constructions were seen as rational and to some extent the only possible solution to the cosmic threat that society faced. If one agrees with this standpoint and takes it as a point of departure, there are two striking features regarding Ancient Egypt compared to the majority of archaeological funerary monuments.

First, ‘ideology needs architecture for its fullest expression’ (Kemp 2006:248). The pharaoh’s motto was ‘to go beyond everything that was accomplished in the time of his predecessors’ (Verner 2003:24).
Importantly, the monuments – pyramids and temples – were built continuously in the Old Kingdom. Tombs in general were oriented and determined by the course of the Nile, but the pyramids, which represented heaven on earth, were oriented strictly in accordance with the points of the compass (Assmann 2002:59). In the Egyptian world everything was structured around the living king and his rituals. Probably the most distinctive characteristic of the rituals was that it ‘was not conceived of as a communication between the human and the divine, but rather as an interaction between deities’ (Assmann 2001:49, original emphasis), and this process has its origin in the mortuary cult.

Second, contrary to most monuments of death built by the deceased’s descendants and followers after he has passed, the pharaohs had to build the monuments themselves while they were alive. On the one hand, one may argue that a pyramid like the one of Khufu, which was built by some 30,000 men over a period of 30 years (Verner 2003:81), would have been difficult to build by the descendants. On the other hand, the Taj Mahal in Agra in India was built over a 20-year period between ca. 1632-1654 by the Mughal emperor Shah Jahan in memory of his deceased wife, Mumtaz Mahal, who died in 1631. It is estimated that some 20,000 workers were employed in the construction of the monument. Hence, it would have been possible for descendants to build the pyramids, even such massive monuments as Khufu’s pyramid, but this was not the case. Menkaure died before he was able to complete his pyramid complex, and it was Shepseskaf who completed his father’s complex at Giza, but the fact that he used mudbricks rather than stones indicates the great haste and probably reduced means he had to fulfill his duty (Verner 2003:157-158), and there are numerous unfinished pyramids. Statues of pharaohs placed in temples or the ancient kings were occasionally worshipped in rituals for centuries after their death (Frankfort 1948:55), but the overall cult placed an emphasis on the pharaoh himself as an acting god. The main figure was the pharaoh as the living and present god, not the reminiscences and monuments of gods who were no longer active in this world, although obviously they were important from a cosmic perspective.

From a cosmogonic perspective the world and cosmos had to be maintained here and now. The building of funerary monuments had a religious and cosmogonical role. The monuments were not only commemorative sepulchres, but materialised efforts to stabilise cosmos and secure welfare and prosperity. Therefore they had to be built by the pharaoh during his lifetime because the pharaoh’s power resided in him only as long as he was alive. When the pharaoh as Horus died, he changed role and took the role of his father by becoming Osiris, which will be discussed later.
The cosmic threat of chaos was not a mythological one, it was real and it was here and now: chaos, disorder and instability could happen at any time, or more precisely, the success or failure of the forthcoming Nile would determine cosmos and social order. The Nile was the most important factor which brought prosperity or caused catastrophes in Egypt. It is in this light that the continuous construction of monuments has to be seen. The living pharaoh created Maat and stabilised cosmos – and his funerary monument was a part of this process.

As mentioned, the building of pyramids started at the beginning of the Third Dynasty during the reign of Djoser (ca. 2650 BCE), which was a watershed in Egyptian and world history. Djoser built a 62.5-metre six-step pyramid. During the reign of Sneferu, the first king of the Fourth Dynasty (ca. 2613-2589 BCE), new impulses and ideas emerged. Sneferu constructed three major and two minor pyramids (fig. 55), which together contained more cubic metres of stone than the Great Pyramid of his son Khufu (ca. 2589-2566 BCE). Khufu’s pyramid is the world’s largest pyramid: the sides are 230.37 metres and the height originally measured 146.59 metres. His successor Khafre (ca. 2558-2532 BCE) built the second largest pyramid at Giza. The development of the pyramids was a colossal statement of divine kingship. Three generations in the Fourth Dynasty did the bulk of pyramid building, and later the pyramids became smaller and more standardised. From the Old Kingdom 21 of the 23 major pyramids stand like sentinels on a 20-km stretch, including those at Giza (Lehner 1997:14-15). The mortuary complexes in the Fifth Dynasty show a major change in focus from pyramids to funerary temples (Stadelmann 1995). The question is: how does this relate to climate and mythology?
Chapter 8:
The Nile, Death and the Egyptian Civilisation

Conflicting Water Worlds

Today Abydos is the richest agricultural area in Upper Egypt, and most likely agriculture was the very basis of the Predynastic wealth (Bard 1987:90). The question is therefore which type of agricultural ideology or water religion these societies had in the Early Dynastic periods and during the Old Kingdom: rain, river or a combination? As with most archaeology, ‘Most of the desirable evidence has irretrievably gone, ruling out any serious kind of quantification or deep exploration of what brought about changes’ (Kemp 2006:7). Nevertheless, by using data from mythology, climate, the archaeological material and the ritual practices which have been conducted, one may discuss and summarise some aspects of the religious development.

The very location of Abydos suggests a river adaptation and an inundation civilisation, but agricultural societies may also be dependent upon rain. Mythologically, the tomb of King Zer became the shrine of Osiris in the Eighteenth Dynasty (Petrie 1901:8). Osiris is found in the Nile, and the Pyramid Text generally locates this place as the banks of Nedyt at Abydos. ‘Betake yourself to the waterway, fare upstream to the Thinite nome, travel about Abydos in this spirit-form of yours which the gods commanded to belong to you; may a stairway to the netherworld be set up for you to the place where Orion is, may the Bull of the sky take your hand, may you eat of the food of the gods’ (Quirke 1992:21-22).

The water cosmology as a religious process enabled this stratification because it was ritually institutionalised in the divine kingship. If the kings in the Predynastic era were rainmakers, with the unification and the constitution of the religious development.

This has to be seen in relation to the human sacrifices in the royal funerals of the First Dynasty kings. ‘What might seem surprising is that the practice should begin after a formative period, not in the setting-up of the centralized state and creation of a status for the kingship but at a later point of transition, although that too can be paralleled’, John Baines argues, ‘Its motivation will remain unknown, but it occurred in the same period when the titulary proliferated, along with other assertions of royal status. For reasons that have not yet been established, the king’s special nature and authority – but not divinity in any simple sense – were stressed to the utmost’ (Baines 1995a:137). Hierarchisation was a process of divination. The water cosmology as a religious process enabled this stratification because it was ritually institutionalised in the divine kingship. If the kings in the Predynastic era were rainmakers, with the unification and the constitution of the Ancient Egyptian civilisation the kings embodied the flood as Horus through the Eye.

The success of the pharaoh was measured in the life-giving waters, to repeat Amenemhet I again who wrote: ‘The Nile honoured me on every broad expanse’, meaning that the inundations were good (Bell 1971:18). Hostile views of Khufu as well as other pharaohs may imply that people knew of the kings’ potential or actual failures, and tomb robbing and looting were blasphemous acts against the kings (Silverman 1995:58-60). In the Old Kingdom, Wainwright interprets the stories of Khufu, Khafre and Menkaure in this light as told by Herodotus, although the story is in a distorted and scarcely historical form. Khufu and Khafre were successful in the struggle against the old rainmaking ideology. Herodotus says that both of them forbade the Egyptians from conducting sacrifices (II, 124, 128) which resulted in calamities that brought the people ‘to the lowest point of misery’ (129).

Menkaure, however, returned to the old system and allowed the people ‘to resume the practice of sacrifice. His justice in the decision of causes was beyond that of all the former kings. The Egyptians praised him in this respect more highly than any of their other monarchs’ (129).
Menkaure built a much smaller pyramid (fig. 56), but he had to die after seven years, according to the oracle from Buto, who said, ‘Six years only shalt thou live upon the earth, and in the seventh thou shalt end thy days’ (133). This interprets Wainwright as the well-known doom of royalty under the old sky and fertility religion (Wainwright 1938:68): when their powers failed or when they became old, they had to be sacrificed. However, the Sed festival was a fertility rite, and prisoners are obvious substitutes for kings. At Narmer’s Sed festival apparently 120,000 captives were slain (Wainwright 1938:60), although most likely this number is not referring to a real event.

Seth continued to play a crucial role in the mythology of Ancient Egypt. Even though he became demonised and seen as a threat to society and the welfare of the people, he did not disappear from the Egyptian pantheon. This has to do with ecological variables and his role as a rain god. From the very beginning of the civilisation the origin myth was the feud between Seth and Horus about the life-giving waters, and this theme runs through the Nile for 3,000 years, although in different forms. However, if the Nile failed successively, the last source of water was rain, and people would turn to Seth when the Nile failed, which has its parallel in the Muslim rain prayers. In Islamic Egypt, rain prayers only took place when the Nile failed and showed signs of drought.

‘The communal performance of rain rituals may be said to express a collective desire to pass from a state of sin to a state of virtue, in order to bring about forgiveness and mercy, thus effecting a reversal of the drought situation. Underlying the performance of these rituals is the common belief that natural catastrophes are caused by human transgressions of God’s laws, which may be reversed only if people repent their sins’ (Lutfi 1998:273).

Therefore, during times of crisis if the Nile failed, the last resort and hope for water was rain. Thus, Seth could be reactivated as a god, usually a hostile one who did not give the life-giving waters, but in the absence of other bodies of water he was the last possibility.

The Creator of Egypt

Egypt has been seen as the gift of the Nile, but cosmologically the Nile was much more: Egypt was the Nile and the Nile was Egypt, as Heliodorus wrote; the Nile is ‘the giver of life’, ‘the saviour of all Egypt, both Upper and Lower Egypt’, ‘the father of Egypt’ and ‘the creator of Egypt’ (Wild 1981:94). The development of the river religion was the foundation of the Egyptian civilisation. The most important transformations happened in the First Dynasty at Abydos. During this period there was still rain, although not sufficient and
declining in amount. With the unification, the river religion was established, but there were still reminiscences of the former Seth ideology and rainmaking practices evident in the rituals as well as in the royal titular. This suggests that the transitional period was characterised by syncretism and visualisation of absolute power.

Apart from the above discussed necessity of having Seth as a crucial player in the Osiris and river mythology and ideology, in the First and the Second Dynasties it seems that Seth also had a more central role as still being the former and original rain god. This indicates that the replacement of one religion with emphasis on rain with another with an emphasis on the Nile, both within the religious water world, was not completed with Menes and that during the first 300 years of the Egyptian civilisation syncretic beliefs coexisted with regards to rain and river ideologies. Although during this period the rainfall declined, it was still higher than during the later dynasties. This could have been perceived as Seth as a god becoming more unpredictable, but still present and in this transitional period agriculture would have been watered by both rain and the river. Still, when agriculture became more and more dependent upon the Nile’s annual inundations, which also declined rapidly in the two first dynasties, the change in religion must have caused theological debates among the rulers, priests and commoners. Nevertheless, beliefs are deep and resilient structures that are impossible to replace within a generation, and consequently one would have anticipated that there were contested views with regards to the religious changes that took place.

Opposition, resistance and contested beliefs may suggest and partly explain the changes which took place in the mortuary cult both with regards to monuments and ritual practices. First, since one religion or ideology is not replaced with another immediately and without parallel and overlapping, syncretic traditions, new ideas and beliefs are often expressed through the old symbols and structures. As I have argued with regards to the original feud between Seth and Horus, the life-giving waters, rain or river, were at stake.

With the transformation from Seth to Horus, the river god as Horus remained celestial rather than becoming terrestrial, and hence, the Eye and the Sun contained the Nile and its inundation. The symbols were the same, but the content had changed. As Obeyesekere has argued, symbols both enable and constrain the possibility of cultural change (Obeyesekere 1981:169). Moreover, by using the old and familiar elements it may have been easier to legitimise changes in a language familiar for the learnt and the laity.

Second, in a time of transition, there is an escalation in ritual practices. The new king has to manifest his absolute power. There were some subsidiary graves in Aha’s grave, but in the successive graves from Djer and onwards, the human sacrifices and retainer graves exploded in number. Djer’s grave is the one with most subsidiary graves – almost 600 if one includes both the upper and lower cemetery, and then there is a decline in sacrifices throughout the First Dynasty (Petrie 1925:3). Thus, the very foundation of the Ancient Egyptian civilisation was based on human sacrifices, and when the civilisation was constituted, the practice disappeared and was never brought back. One reason for the massive sacrifices and subsidiary graves is that such practices show that the king is divine and has absolute power over life and death for all inhabitants in the civilisation. The king is Egypt. Another reason, which may not be in opposition to the other, is that in rainmaking traditions the killing of the king, which could include his servants, was a common practice when the rain or life-giving waters failed. This can be interpreted in two ways, and in this regard it is worth noting that this practice first became widespread at the time of the third king of the First Dynasty. If there was strong opposition to the new ideology and religion, these sacrifices could have been conducted within the former rain ideology to prove to critics that the rain ideology did not work (see Tvedt & Oestigaard 2010b). On the other hand, it could also have been a testimony of the new river ideology, which continued the old practice of sacrificing the kings and his servants. The reasons for these massive sacrifices are still poorly understood, but in any case it manifested the kings’ absolute power with an escalation of former practices within a new context in which the rationale and meaning of these burials expressed a different ideology or religion. Moreover, in traditional rainmaking societies it was mainly the king who was sacrificed, but this killing was transformed and expressed with other symbols and people.

Third, following Hocart, the first king must have been a dead king (Hocart 1954). ‘The fictitious death of a king at his coronation is thus a mitigation of a real death. He is supposed to die because once, in order to be king, he really did die’, and therefore, ‘the coronation ceremony is a substitute for killing, and that a king was originally made by killing a man as a human sacrifice’ (Hocart 1954:77-78). The ritual killing eventually turns into a symbolic killing (Hocart 1954:82), or the killing of substitutes such as servants. When the Osiris cult started is, as discussed earlier, uncertain, but it reaches back to the First Dynasty (David 1981:120). Narmer is presented as Horus the Falcon on the Narmer Palette and after death he would become Osiris, thus the first king would have been a dead king.

Therefore, both the mythology and the actual royal genealogy were based upon the principle that the first king must be a dead one. This also marked a change from the principles within rainmaking ideologies where the king could be killed if the rain failed. With the new religion the king embodied the river by becoming Osiris after death. As the king, Horus the son controlled the Nile through annual rituals, and consequently, the living king could not be killed if the river failed because the Nile was his father’s efflux. This change in ideology may also be witnessed in the monumental architecture.
Fourth, the First Dynasty in Egypt marks a watershed in history with its colossal death rituals and monuments. Although the rainmakers in cultures like that of the Shilluk in Sudan all traced their genealogy back to the immortal origin king and god Nyikang, in the pharaonic civilisation each deceased king became immortal through Osiris and hence embodied the Nile and all life. This was manifested architecturally in death, which also was a visible manifestation of the new cosmic order for society. It was a transformation of all aspects of cosmos structured around the living king, which was completed in death. The regularity and the continuous presence of the Nile enabled the development of such beliefs compared to the irregularity of rain, but still, the new religion was not complete as evident by the presence of Seth in the royal titular.

Fifth, there are few archaeological finds from the Second Dynasty, but the main theological development resulted in Djoser’s construction of the first pyramid in the world during the Third Dynasty. This was an ultimate expression of the Osiris cult in which the pharaoh represented Ra controlling the life-giving waters through the Eye and the transformation of the deceased king into the annual flood, which was seen as the efflux of Osiris. The construction of the pyramids at Giza during the Fourth Dynasty served to physically express this ideology (fig. 57). This can also be seen as both a form of resistance to the new cosmology presented by Seth believers whereby the pyramid builders manifested the importance of the new, river religion by the monumental size of the pyramids, as well as a testimony to the stakes involved: all life-giving waters and the existence of the Egyptian civilisation.

With regards to failing floods, ‘it seems clear that the spectre of famine due to Nile failure in individual years must have haunted the Egyptians to a greater or lesser degree throughout all periods of Egyptian history’ (Seidelmayer 2000:129-130). Thus, one may discuss failing floods and the implications it had on a general level. In either case – whether the flood failed repeatedly due to too much or too little water, and despite increasingly elaborate rituals – the pharaoh would have proved to himself and in particularly to all others that he did not possess the divine powers and capabilities to procure the life-giving waters any longer, or even if he did, the forces of Order were subordinate to those of Chaos. In other words, he was not capable of keeping his cosmic duties. This seems to be the situation during The First Intermediate Period where the elites replaced the pharaoh in his cosmic obligation of providing prosperity or at least food for the people. This may be why there are no references to the divine pharaoh. But even though he
did not fulfil his cosmic commitments which legitimated the pharaoh as god, the Egyptians still believed in Maat, the cosmic order and the divine kingship.

The ideology that gave rise to the pharaohs became their nemesis when the flood failed. Since the cosmological worldview was defined and religiously legitimised by the outcome of the Nile, famines – as a result of too little or too much water – would have been seen as a cosmic threat with severe ontological consequences. Hence, what we label as climate or ecological change, or just interannual variation in the flood, would most likely have been seen as changes in the cosmological order.

This was, however, the normal situation and the very reason for the pharaonic cult. It was because of the annual variation that both cosmos and people needed the pharaohs, and this dependence gave the pharaohs the legitimacy they needed in their pyramid projects. They served the welfare of society and the stability of the cosmic order. The variability required the pharaohs to control and stabilise the world and cosmos through water. However, if the pharaoh was unable to provide sufficient floods year after year, he was replaced – just as the African rainmakers would have been. It is unknown whether the pharaohs were killed, but their replacement indicates that they were held responsible for the lack of water. In any case, the pharaohs’ funerals were the most important rituals, transforming the world, which procured and secured the life-giving waters.

The Worlds of Death

In the Egyptian language the pyramid of Cheops was called akhet of Khufu. Akhet is the threshold region between the sky, the earth, and the underworld; in particular, akhet is the place where the sun rises’ (Assmann 2002:58), hence the king ascends to heaven by his akhet. In the Pyramid Texts the pyramids are described as follows:

‘Hail to you, daughter of Anubis, who is at the windows of the sky, the companion of Thoth, who is at the uprights of the ladder! Open my way that I may pass. Hail to you, Ostrich which is on the bank of the Winding Waterway! Open my way that I may pass’ [Pyr. 468-469].

The placing of the corpse in the coffin was seen as a return to the uterus, while the comparison of the mummy with the egg points to the epitome of origin (Assmann 2005:95).

The coffin has also been seen as the pregnant body of the sky goddess Nut or Neith who will bring forth the child (Assmann 2005:165). In the coffin the deceased is incorporated into Nut, the great mother and goddess, and thus is regenerated for eternity. This equals the sun god. In the morning, the sun appeared between Nut’s thighs. The western horizon is her mouth and the eastern horizon is her vagina (Meskell & Joyce 2003:16). Nut appears in her many facets: in the tomb and the necropolis, in the west and in the realm of the dead. All these spaces are manifestations of the womb into which the transformed dead enter (Assmann 2005:171).

The sun god ruled the whole universe from the sky and the Duat or ‘netherworld’. In the Duat the sun god underwent a transition whereby he died and was reborn the next day (O’Connor & Silverman 1995:xix). ‘Whether as a star or in company with the sun, each day the king re-enters the Duat to be born again into the sky. Given its cosmic associations, the tomb is therefore more than just the final resting place of the king. It is his personal Duat... And it is the womb and 3ḥt that assure him daily rebirth into the sky to begin his eternal cycle of celestial life anew’ (Allen 1989:25-26). This corresponds to the actual locations where the dead resided: during the night they were both in the netherworld and in the sky; while they spent their day in the sun’s boat (figs. 58-59). Thus, they constantly moved in a circuit above and below the earth, but they were also capable of leaving this cosmic, eternal journey and reappearing on earth in the tomb, from which the ba could unite with the buried body or a statue (Frankfort 1948:120).

The two images of death, as both enemy and return to the womb, may seem contradictory, but they are not because ‘they belong to one and the same context, they presuppose and complete one another, and they illuminate one another’ (Assmann 2005:173). The Osiris myth is the deceased’s victory over his enemy – death. The solar myth is birth, particularly when the sun sets on its nocturnal journey through the netherworld. The solar immortality is illuminated through the circular path which goes from birth to death every day, again and again. ‘The sun set an example that everyone wished to follow: a cycle course of life, return to the origin, overcoming death, consummation as conception, and restoration through (re)birth’ (Assmann 2005:174).

The netherworld is the place where the dead are dead and they have to walk upside down, eat their own excrement and urine, and wander around in dirt and filth. Beyond this realm, there is the place of eternal life where the transfigured deceased becomes an ancestral spirit. A body of water, which the deceased must cross, separates the two realms of the netherworld as either a place of death or life. In order to cross this water the deceased must wake the ferryman who is reluctant to let the dead into the spheres of the living and divine (Assmann 2005:131-133).

In the netherworld, the deceased as well as the sun and the gods come into contact with the ‘primeval waters’ or the elements of the pre-cosmos or pre-existence. Hence, every morning the sun emerged from the primeval waters. The annual inundation of the Nile also had its origin in these waters (Assmann 2005:184). Hence, ‘Without death and the descent into the deepest depths of the netherworld, regeneration cannot be achieved. The great model of regeneration is the sun god, who descends nightly into these depths to unite with his corpse, which is resting there, and to renew himself through this union’ (Assmann 2005:183).
Fig. 58. The dead’s journey to eternity. From the Dendera Temple. Photo: Terje Oestigaard.

Fig. 59. One of Khufu’s solar barks which transported the king to the heavenly ocean. Photo: Terje Oestigaard.
Death as Life Source – Water and Ablution

In *Death and Salvation in Ancient Egypt*, Jan Assmann (2005) analysed and emphasised the role of water in death for rejuvenation and further life. While most of his examples are later than the Old Kingdom, they reveal structural insights into the dynamics and transfiguration from death to life in Ancient Egypt. It is most likely a historical trajectory from earlier periods that was modified and continuously developed. Nevertheless, for analytical purposes one can treat Egyptian religion ahistorically or phenomenologically in order to illustrate certain points by using the *Pyramid Texts* (fig. 60) and Graeco-Roman texts as sources (Assmann 2001:149). Hence, while not ideal, one may legitimise the use of later texts and traditions as a means of gaining knowledge of religious structures and concepts since, after all, the later traditions are more closely related in time and space and they build on former beliefs and structures. Still, one must be aware that traditions change through time, and that earlier traditions are therefore not identical to later ones.

Water rituals, libations and purifications were fundamental throughout the history of Ancient Egypt. One water ritual was ‘Uniting with the Sun’, which consisted first of all of the purification of the mummy as part of which water was poured over the body from *nemset*-jars. In a mortuary spell in Theban Tomb 23, the rite is described (Assmann 2005:323):

‘May you stand up on the sand of Rasetau, may you be greeted when the sun shines on you, and may your purification be carried out for you as a daily performance. May Nun purify you, may cool water come forth for you from Elephantine, may you be greeted with the *nemset*-jar. Take incense for yourself, May the divine words purify you, may your mouth be opened by the chisel of Ptah […]’

Water from Elephantine is also mentioned in other purification spells for the dead (Assmann 2005:333). New Kingdom texts state that the transfigured should drink water from the ‘altar of Ra’ at Heliopolis. Moreover, spells and offerings were designed to make the Nile water reach the tomb. Such wishes were very common in the New Kingdom, and it was also believed that Nun, the primeval ocean from which the Nile inundation arose, flooded the tomb (Assmann 2005:346-347). Thus, in death the dead came in contact with the primeval and cosmic origin. In other contexts the inundation is seen as a stream of liquid being poured from a libation vase (Assmann 2005:346-348). Designating water as ‘the discharge of the corpse of Osiris’, particularly when they offered water to the deceased in the form of libation in the mortuary cult, was the central rite in the funeral rites’ (Assmann 2005:355, my emphasis).

*Fig. 60. Unas’ pyramid from the Fifth Dynasty at Saqqara where the oldest Pyramid Texts were inscribed in the tomb. Photo: Terje Oestigaard.*
From the *Pyramid Texts* to Plutarch all water was seen as Osiris’ efflux. In the words of Plutarch, the Egyptians call not only the Nile, but all water in general, ‘the discharge of Osiris (Osiridos aporrhoe)’.

The Nesmin papyrus (Haikal 1970) dates to the beginning of the Graeco-Roman period, when the mortuary cult at Thebes was the responsibility of the choachytes (water pourers). They formed a cultic association at Medinet Habu (fig. 61), whose divine model was Amun of Luxor. In the Eighteenth Dynasty, Amun crossed over to the west bank every 10 days to offer water to his ancestors at the temple of Medinet Habu. Hence, the choachytes were obliged to perform a similar water offering to the deceased in the tomb every 10 days to unite the dead with the libations made by Amun in Luxor (Assmann 2005:355). In the Nesmin papyrus, this spell has the longest history going back to the *Pyramid Texts* (Assmann 2005:356):

‘O Sokar Osiris, take this libation, your libation from Horus, in your name of “Cataract-area”. Take the discharges that have come out of you, which Horus gives you in that place where you were pushed into the water’.

The same theme is evident in the *Pyramid Text Spell* 436 [Pyr. 788-789]: ‘You have your water, you have your flood, the fluid which issued from the god, the exudation which issued from Osiris. Your hands have been washed, your ears have been opened. This mighty one has been made a spirit for the benefit of (?) his soul. Wash yourself so that your double may wash himself and that your double may sit and eat bread with you without cessation for ever and ever’.

**The Nile and Rejuvenation**

‘It was believed that with its annual rise, the Nile was rejuvenating itself, even as it rejuvenated the fields’, Assmann argues, ‘The Nile inundation was the central symbol of cyclical time, which did not flow irreversibly toward a goal but rather ran back into itself in a cycle, thus enabling renewal, repetition, and regeneration. For this reason, water was the most important of the libation offerings. In water lay the power of return’ (Assmann 2005:359). On a late bronze libation vessel, this is explicitly stated (Assmann 2005:359-360):

‘To be spoken by Nut: O Osiris N., take the libation from my own arms! I am your affective mother, and I bring you a vessel containing much water to satisfy your heart with libation.'
Inhale the breath that goes out of me, that your flesh may live thereby,
for it is I who give water to every mummy and breath to the one whose throat is empty,
who cover the corpses of those who have no tomb.
I shall be with you and unite you with your ba,
I shall not depart from you, forever.

O Osiris N.,
take this libation
that comes from Elephantine,
this discharge that comes from Osiris,
which Sothis (the goddess of the new year) brings with her own arms
as she associates Khnum with you.
A great Nile inundation has come to you,
its arms filled with rejuvenated water,
to bring you gifts of all fresh things at their time,
with no delay […]'

The sacramental explanations of the role of water in cosmos and rituals lie in the social effects of water which connect the dead with the gods; the rejuvenating effects
which made time run backwards; and its space-opening
effects which provided the deceased with freedom,
movement and breath. The Nile water, or more precisely
the inundation, had all the qualities because the Nile
flowed from the netherworld at the First Cataract at
Elephantine, as stated in an inscription at Dendera
the water “Repeater of Life”, which emerges from your
leg, from the source-cave from which the Nile inundation
springs forth, coming to your flesh, so that Your Majesty
is rejuvenated’ (Assmann 2005:361). Thus, following the
myth, the annual inundation came from a wound on
Osiris’ leg. The injury was inflicted by Seth when he
murdered Osiris. The leg itself was connected to
Elephantine. This correlation between Osiris’ body
and the actual parts of Egypt was developed and elaborated in
later periods when the 42 nomes of Egypt were identified
with the 42 body parts of Osiris (fig. 62). This is similar to
the Pauline concept of the Church, which is seen as the
body of Christ; in Egypt the 42 nomes constituted Osiris’
complete body (Assmann 2005:361).

‘We thus see that a correspondence of microcosm and
macrocosm underlay the designation of water as the
“discharge of Osiris”. The world – or Egypt, at least –
was conceived as a body, and the water of the Nile as an
elixir of life that gushed forth from it...Elephantine...was
the place where the life-juices flowed out of Osiris and
floode Egypt, giving rise to all the means of life. When it
was offered to him in the cult, the water of the
inundation, which had flowed out of the body of the slain
god, made it possible to restore life to him, as well as to
all dead, who were equated with him’ (Assmann

This homology between body and water is also found in
the Pyramid Texts: ‘In your name of Dweller in the City of
Lakes. What you have eaten is an Eye, and your belly
is rounded with it; your son Horus has released it for you
that you may live by means of it. If he lives, this King will
live, etc. Your body is the body of this King, your flesh is
the flesh of this King, your bones are the bones of this
King; when you go, this King goes (also), and when this
King goes, you go (also)[Pyr. 192-193].

The inundation was truly the elixir of life, as shown in
depictions where water flowing from libation vessels is
simply a chain of hieroglyphs for ‘life’ (ankh) (Assmann
2005:362, see fig. 42). The Nile had its origin in Nun, the
primeval waters of origin but also the water that
surrounded the world. Since this primeval water was
ever-present, and because everything emerged and was
created from this water, it also encompassed cyclical
time, reversed processes, and enabled complete
rejuvenation. The sun bathed in this primeval water each
morning and it was this cosmic water that was poured
on the deceased. Through the water the dead came in contact
with the original powers of creation, impulses and
energies, and it was from here that all life ultimately
began and ended. Hence, these capacities could be
explicitly proclaimed, as with the purification of the king
which was expressed in a spell as follows (Assmann
2005:363): ‘Pharaoh is Horus in the primeval water.

Death has no power over him. The gods are satisfied with
Pharaoh’s purity’. Thus, to sum up the cosmic qualities
and capacities of the primeval water and the Nile, again
in the words of Jan Assmann:

‘Whoever immersed himself in the primeval water
escaped death and gained strength for new life. Death
was a consequence of pollution that could be erased by
means of the primeval water. This water regenerated all
that was decayed, and it turned back the hours. A world
in which this water was effective needed no creator, for it
was itself creative, divine and holy, carrying within itself
the mysteries of redemption’ (Assmann 2005:363).

Water was everything: it was the creator of cosmos and
the world; it was self-generative and pro-creative. The
Nile was hence the origin and source of everything,
linking this world with the cosmic spheres. Its annual
inundation secured not only life and prosperity for the
living, but it also secured and renewed cosmos. This
process also linked death to life or more precisely, life
through death, which necessitated proper funeral rites and
the preparation of the dead.

**Mummification and ‘Opening of the Mouth’**

According to Herodotus, the process of mummification
took 70 days, which is the same time the constellation of
Orion took to ‘disappear’ from the summer skies (fig.
63). During this period the soul lay unconscious in the
Duat (Mojsov 2005:18). However, as indicated earlier,
this intermediate period could last for a much longer
period. It was intimately related to the natural cycle and
the Nile flood, with the mummification and rejuvenation
of Osiris considered part of the life-giving powers of the
inundation. The technique used by Isis in order to raise
the dead Osiris to life became the basis for the subsequent
practice of mummification. The idea of both
dismemberment and mummification was to identify the
dead person with Osiris. Anubis helped Isis by restoring
Osiris’ body by wrapping it in mummy bandages
(Mojsov 2005:20). ‘Osiris was life caught in the spell of
death’ (Frankfort 1948:185), and the embalming ritual of
Osiris applied to all of Egypt (Assmann 2005:365).

In death water rejuvenated life. The ‘opening of the
mouth’ ritual goes back at least to the Fourth Dynasty as
seen in the tomb of Metjen (Roth 1992:117). The ritual is
elaborated in the Pyramid Texts. Unas received cold
water and two pellets of natron, which urged him to go
forth to his son Horus who brought his Eye and then took
the efflux which had come from Unas. After receiving
different offerings of food, Unas got a full meal, which
consisted of meat and beer. This part of the funeral was a
rebirth in which the dead was reborn in order to
participate in the afterlife. The food gift symbolised the
process whereby newborn children could not receive a
full meal before they had gone through successive
nursing stages. The ritual enabled the dead to pass from
birth to childhood and the process of eating and maturing
(Roth 1992:119-121).
In the Predynastic period death was a return to the womb whereby the deceased was buried in oval womb-like graves (Roth 1992:127). The tool used for ‘opening the mouth’ was the same which was used for cutting the umbilical cord (fig. 64).

Therefore, ‘The “opening of the mouth” ceremony seems to have derived from a ritual sequence of actions and spells ensuring the ability of a newborn and developing child to partake of nourishment. By analogy, the same ritual would have allowed the newly-reborn deceased person to eat real and symbolic food that Egyptian mortuary customs went to such great length to provide’ (Roth 1992:146). The funerary rituals then re-enacted the transition from birth and childhood to be an adult. In the mythology this was testified by Osiris and Horus. It seems that this ritual task was assigned to the successor king, which is perhaps depicted in Tutankamun’s grave where King Ay, who succeeded Tutankamun and therefore probably was his son, is depicted with an adze opening the mummy’s mouth (Roth 1993:64). Moreover, this process of rebirth was repeated each day by the living king whose daily rebirth coincided with the rebirth of the sun (Roth 1992:121). The ablutions poured from golden jugs with water from a sacred pool, did not only clean Osiris’ body which had been defiled by Seth’s dismemberment, but also resurrected it (Meyerowitz 1960:117).

The divinities in the temple rituals were purified as were the offerings to the dead and the gods. The libation water was endowed with reconstructive powers, and the ordinary word for a priest was the ‘pure one’ (Blackman 1998a:14-16). The lustral washing of the statue in the ‘Opening of the Mouth’ imitates the washing of the corpse during embalmment and the daily ablutions of the sun god (Blackman 1916:32). The rite of ‘Opening the Mouth’ seems often to have been conducted on the actual mummy on the day of its interment (Blackman 1924:53). The water which came from the Nile’s source at the First Cataract was seen as the exudation from the body of Osiris (Blackman 1924:55). A resurrection text in the Pyramid Texts says ‘You have your water, you have your flood, you have your efflux which issued from Osiris; gather together your bones, make ready your members, throw off your dust, loosen your bonds’ [Pyr. 2007-2008]. Moreover, ‘The penis of the male deceased in its mummiform state was bandaged to stimulate Osiris in its erect state’ (Meskell & Joyce 2003:106). Despite the male and phallic myths at the very beginning of creation, ‘the creation and maintenance of the world is iterated through the swallowing and birthing of the sun, the sexual functionality of the female body’ (Meskell & Joyce 2003:17). In the earthly sphere, at the end of the Old Kingdom, Osiris took over the throne from Ra who...
Fig. 64. An adze is used to open the mouth and eyes of a statue. From Blackman 1924:54.

Osiris was exclusively god of the kings, and Osiris became immensely popular among people (Mojsov 2005:37).

It may even be argued that at the time of crisis during the First Intermediate Period, Osiris took the place of the king as a unifying force in society (Mojsov 2005:46). In the **Pyramid Texts** the king is usually addressed as Osiris. However, private persons started to identify themselves with the deity which earlier was a royal prerogative. The identification with Osiris was originally restricted to the pharaohs, but from the Fifth and the Sixth Dynasties everyone became identified with Osiris through mumification. With the **Coffin Texts** in the Middle Kingdom, as Wilson has put it, ‘any man who was prominent enough and rich enough to afford an inscribed coffin and priestly services at his funeral had magic and religion working for his deification at death. He would become an Osiris on entry into the next world’ (Wilson 1951:116). This represented a dramatic shift from the former royal ideology in which only the king could become Osiris. This religious change developed the Osiris cult into a peoples’ cult in which everybody became identified with Osiris after death.

**The Pyramids and the Nile in the Sky**

Osiris and water did not only play a large role in the mortuary cult, but this procreative force where death was the source of further life included everything, in particular the growing forces. Osiris was an exceptional god. He was everywhere although he did not master any natural domains completely. He was immanent in the earth, but did not personify it; he joined the solar circuit, but did not control it, he was immanent in the Nile but the river had its own god, Hapi; and goddess of grain was Ernutet (Frankfort 1948:185). However, it was this potential and everlasting capacity of constant rejuvenation which was Osiris’ hallmark: ‘being does not emerge from non-being according to this ontology, creation is not creation *ex nihilo*, but a transition from that which is latently existing. In this monistic ontology, being originates from its own source: potential being’ (Finnestad 1985:109). The most striking forces of rebirth and growth immanent in the earth were seen in the annual sprouting of vegetation, and in the earliest texts Osiris is seen as appearing as grain (Frankfort 1948:185). In the **Mystery Play of the Succession** Osiris answers Re: ‘Wherefore shall my son Horus be defrauded, seeing that it is I who make you strong, and it is I who made the barley and the emmer to nourish the gods, and even so the living creatures after the gods, and no (other) god nor goddess found himself (able) to do it’ (Frankfort 1948:185).

‘These mortuary cults are not for the reflective commemoration of the most ancient gods, past and bygone, but for the communication with the gods whose life is going to manifest itself. The dead gods are the gods that will appear: they are the lords of latent life. Their qualification of being dead and buried is their trademark, so to speak: they are by definition the gods of the coming creation. Thus the gods partake in the cycle of latent and manifested life. They are not outside it – they do not transcend life and death but have integrated both states into their being’ (Finnestad 1985:110).

The mortuary cult’s ultimate outcome was *The utilitarian provision of rain*, a ‘Nile in the sky’, *to sustain those people who do not have a share in the terrestrial Nile* (Assmann 2001:59, my emphasis). This should be understood literally and not only mythologically as I have previously argued with regards to the transformation of Seth’s rainmaking powers into a river ideology in the form of Horus and the sun and then finally Osiris. The Nile became the divine river from the sky. The sky, blue during the day and black during the night, had the same qualities as the Nile, and consequently, the Egyptians believed that the sky was composed of water, which surrounded the world (Allen 1997:114).

This also explains the water mythology in death. King Pepi asks the ferryman to carry him to the eastern side of heaven where the Gods are born [Pyr. 1382]. *The face of the sky is washed, the celestial expanse is bright, the god is given birth by the sky upon the arms of Shu and Tefenet, upon my arms* [Pyr. 1443]. The sun undergoes repeated purifications by bathing before dawn when he rises, and the dead king went through the same purifications (Frankfort 1948:157). The water the dead crossed was also the same water they were purified with, and it was the very same water Ra bathed in before each sunrise. Hence, all ritual actions repeated the pristine
emergence from the waters of chaos (Frankfort 1948:154). This was the cosmological water world the Egyptians lived in, but it was also a very fragile one.

The pyramids were built in a time of ecological crisis. It was a transition period in which the source of life-giving water shifted from rain to the river. When the great pyramids at Giza were built, the Nile’s inundation was decreasing. The annual floods became smaller, and the whole of Egyptian society was dependent upon this diminishing river. The pyramids can therefore be seen as the ultimate testimony to the replacement of the old rain ideology by a river religion expressed through sun symbolism. Horus contained the Nile in his Solar Eye. Horus had almost totally replaced Seth, although older perceptions still persisted, as evident in Kaphren’s royal titular who addressed himself as Seth. The dimensions of the pyramids illuminate the religious struggle and seriousness of the cosmological change from a rain to a river ideology. The gigantic dimensions highlight what was at stake: life and the divinity of the pharaohs who controlled life and death through the annual inundation.

The pyramids manifest the importance of water in a desert. Water is truly life, and the pharaohs were responsible for providing it. This happened through death and the monumental pyramids. Death was inevitable, and the challenge for the pharaohs was to transform the sterile desert into life. Hence, there was a double transformation, with a single departure point: death gives life to humans and through the mortuary rituals the deceased attains eternal life and through water the barren desert becomes fertile fields. In a desert, death became the source of life through water. Ancient Egyptian religion was a perfect adaptation to the harsh realities that the desert represented for agriculturalists.

The basic mythology and the struggle between Horus and Seth and later Seth and Osiris testify to the fact that life emerges from death through water. This may also explain why there is no Nile god as such since it is the immanent life-giving power which was worshipped. The Nile was greater than any gods and therefore it could have been idolatry to have represented the Nile as one single god, or perhaps more importantly, providing and securing the annual flood was an always ongoing process. The Nile was the totality of cosmos from time immemorial to the present and into the future – everything was united and present in the pharaoh as Son of Ra who controlled the almighty river. The Nile legitimated everything and everything was the Nile. It was the origin and end of cosmos. Without the Nile everyone in Egypt would have died and the civilisation perished. In the process of transforming death into life and recreating cosmos, the pyramids were gigantic cosmic machines securing the pharaoh’s life for eternity and the life and prosperity for the commoners for one year at a time.

The pharaoh became Osiris when he died. Osiris’ realm was in the underworld and the tomb (fig. 65). The cosmic power was where the pharaoh was, and since the living pharaoh became Osiris when dead, this father-son relationship manifested the whole Osiris-Horus mythology, which is why the pyramids lasted only one generation. When the pharaoh died, he obviously lost his life, but being a universal and eternal god, life needed to be rejuvenated, which happened through the Eye. The Osiris-Seth feud can be understood from a water perspective if water is seen as identical with life: Water is life. Life is water. As discussed earlier, the Eye contained the life-giving water, or more precisely: the Eye contained water and life since they were identical.

Seth killed Osiris by drowning in the Nile. As a former rain god who had lost his life-giving waters, the drowning in water represented the intimate relationship between water and life. Death is the absence of water and further life. By human nature, every pharaoh would physically die, but there is a strong symbolism associated with the killing of Osiris. Seth did not kill Osiris in the desert, which could have been a natural place since the desert was Seth’s realm. On the contrary, Seth killed Osiris in the very source of all life: the waters of the Nile. This is not a paradox because it emphasised the pervasive role of water in Egypt (fig. 66).

This relates to the old feud between Horus the Elder and Seth when they fought over the life-giving waters: rain or river. By drowning Osiris Seth took back the life-giving powers and water, which implies that he took the Eye. However, there were still no rains, so if Seth controlled the life-giving waters in the form of rain, there would be an absence of water and hence death. This is why Seth later became associated with the Devil who treated people malevolently.
When Horus the Son killed Seth, he regained the Eye and restored it to Osiris, which is identical to the old feud in which Horus the Elder regained his Eye from which the Nile originated.

The drowning of Osiris in the Nile emphasises that all life has its origin in death. When the Nile retreated it was mourned, but it was also a precondition for further life. Absence of water means absence of life, but the decreasing Nile created the fertile fields from where the forthcoming life would sprout. Hence, the cycle of life and death has its parallels in human life, the annual harvest and the daily birth of the sun from the cosmic waters. The pharaoh could only become eternal through death and the life-giving waters. The sun died every evening, but was reborn the next morning. Life had its origin in death and death created life, and this cycle was the Egyptian water world.

The new pharaoh demonstrated his cosmic powers by conquering death and restoring life. It was Horus the Son who killed Seth and made his father Osiris eternal and rejuvenated him through the life-giving waters in the Eye. Hence, the actual funeral ceremonies had a double function. The deceased Horus became eternal as Osiris and Horus the Son became the new pharaoh by killing Seth and transforming his father into the Nile and the annual, life-giving waters. Horus the Son as the pharaoh was the living God who mastered and controlled all life through the waters and the successful inundation. Since it was his father who was the actual inundation, this genealogy secured the divine status of the living pharaoh. It placed the living pharaoh in the middle of cosmos where his main task was to maintain Maat by providing and controlling the life-giving waters.

These waters came from death. The annual inundation was Osiris’ efflux. As the river turned red-brownish during the summer, this was the pharaoh’s blood, who now was transformed into Osiris and the forthcoming flood, which gave life and prosperity to all of Egypt. The new pharaoh as Horus the King was responsible for this transformation, and the new king was not crowned before his father was successfully transformed into the life-giving flood when his efflux covered the whole of Egypt. Osiris’ discharge thus gave life to the dead king and to his people, rejuvenating Egypt and its inhabitants. The source of new life had its origin in death, which puts the emphasis on the mortuary cult.

This may also explain why the pharaohs had to build their own pyramids when they were alive. ‘The spectacular achievements of pharaonic Egypt would have been impossible, even unimaginable, without the driving force

Fig. 66. The Nile at Aswan. Photo: Terje Oestigaard.
of ideology; and that ideology centred on the role of the king’ (Wilkinson 2000b:23). The pyramids were literally the physical ‘machines’ which enabled the transformation of death into life or Horus into Osiris. In other words; water and the annual inundation. This was the function of the funeral rites, and therefore, the pyramids had to be completed when the pharaohs died. Consequently, it was impossible for the Ancient Egyptians to start building the pyramids after the pharaohs had died because these mortuary monuments were not commemorative sepulchres.

The main function of the pyramids was as a means for the new pharaoh as Horus to transform his father’s death into life-giving waters for the entire Egypt since the pharaoh was identical with Egypt, and Egypt was identical with what the annual inundation covered. This task could not be postponed 20 or 30 years after a pharaoh’s death, which would have been the case if the descendants started building pyramids after a pharaoh’s death, because then all of Egypt would have perished. When the new pharaoh successfully had transformed his father as Osiris into the annual inundation through the funeral rituals, he controlled the forthcoming floods through rituals. Order was restored in cosmos. The pharaoh’s death was the key threat to life in Ancient Egypt as he controlled the Nile and all life. Hence, the new pharaoh could only solve this crisis of chaos by transforming death into life through the funeral rites whereby the dead pharaoh became the actual flood which possessed the life-giving powers restoring and rejuvenating life and cosmos.

The pyramids at Giza from the Fourth Dynasty were built in a time of climate change when the amount of water in the Nile declined. It was a transition period in which the life-giving water changed from rain to a total dependence on the river. The pyramids can therefore be seen as the ultimate testimony to the importance of incorporating the river religion and the annual inundation into the pharaonic mortuary cult. Therefore, the actual funeral ceremonies had a dual function. The deceased Horus became eternal as Osiris and Horus the Son became the new pharaoh by killing Seth and transforming his father into the Nile and the annual, life-giving waters. Horus the Son as the pharaoh was the living God who mastered and controlled all life through the waters and the successful inundation. The annual inundation was Osiris’ efflux – his deceased father. As the river turned red-brownish during the summer, this was the blood of the rejuvenated pharaoh who had become Osiris, which gave life and prosperity to all of Egypt. Therefore, one may rephrase Herodotus when he said that ‘Egypt is the gift of the Nile’. The presence of the Nile was not simply seen as a gift, but it necessitated that all forces in cosmos worked together in the process of rejuvenating the dead pharaoh into Osiris and the inundation through the mortuary cult. Egypt was the Nile, and Ancient Egypt was identical with the inundation. This is at least one interpretation of why the pyramids were built.
# Appendix 1: Chronology

<table>
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<th>Rulers</th>
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<td>1st Dynasty</td>
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<td>Sahura</td>
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<td>2181-2160</td>
</tr>
<tr>
<td>Peribsen</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Khasekhemwy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old Kingdom 2686-2160 BCE</td>
<td>3rd Dynasty</td>
<td>2686-2613</td>
<td>2160-2055 BCE</td>
</tr>
<tr>
<td>Nebka</td>
<td>2686-2667</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Djoser (Netjerikhet)</td>
<td>2667-2648</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sekhemkhet</td>
<td>2648-2640</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Khaba</td>
<td>2640-2637</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sanakht?</td>
<td>2637-2613</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Huni</td>
<td>2613-2494</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th Dynasty 2613-2494</td>
<td>9th and 10th Dynasties</td>
<td>(Harkleopolitan)</td>
<td>2100 BCE</td>
</tr>
<tr>
<td>Sneferu</td>
<td>2613-2589</td>
<td>Khety (Meryibra)</td>
<td>2055-2001 BCE</td>
</tr>
<tr>
<td>Khufu (Cheops)</td>
<td>2589-2566</td>
<td>Khety (Nebkaura)</td>
<td></td>
</tr>
<tr>
<td>Djedefra (Radjedef)</td>
<td>2566-2558</td>
<td>Khety (Wahkara)</td>
<td></td>
</tr>
<tr>
<td>Khafra (Chephren)</td>
<td>2558-2532</td>
<td>Merykara</td>
<td></td>
</tr>
<tr>
<td>Menkaure (Mycernius)</td>
<td>2532-2503</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shepseskaf</td>
<td>2503-2498</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Appendix 2:
#### Nilometer measurements from the Palermo Stone

P, C-1, C-2, C-3, C-4, C-5, L. Summary of the dynasties, kings and Nile heights from Clagett (1989:67-95). Other events which are described are not included in this list.

<table>
<thead>
<tr>
<th>Dynasty</th>
<th>King</th>
<th>Year</th>
<th>Nile height</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Dynasty</td>
<td>Horus Narmer</td>
<td>Year X+1</td>
<td>Not recorded</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+2</td>
<td>Not recorded</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+3</td>
<td>Not recorded</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+7(?) + 1</td>
<td>Not recorded</td>
</tr>
<tr>
<td></td>
<td>Horus Aha?</td>
<td>Year X+7(?) + 2</td>
<td>Not recorded</td>
</tr>
<tr>
<td></td>
<td>Horus Djer</td>
<td>Year 1</td>
<td>6 cubits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 2</td>
<td>…</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 3</td>
<td>4 cubits, 1 palm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 4</td>
<td>5 cubits, 5 palms, 1 finger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 5</td>
<td>5 cubits, 5 palms, 1 finger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 6</td>
<td>5 cubits, 1 palm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 7</td>
<td>5 cubits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 8</td>
<td>6 cubits, 1 palm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 9</td>
<td>4 cubits, 1 span</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 10</td>
<td>(destroyed)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+1 (=20?)</td>
<td>…</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+2 (=21?)</td>
<td>…</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+3 (=22?)</td>
<td>…</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+4 (=23?)</td>
<td>…</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+5 (=24?)</td>
<td>…</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+6 (=25?)</td>
<td>…</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+7 (=26?)</td>
<td>…</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+8 (=27?)</td>
<td>…</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+9 (=28?)</td>
<td>…</td>
</tr>
<tr>
<td></td>
<td>Horus Wadjji</td>
<td>Year X+2 (=19?)</td>
<td>5 cubits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+3 (=20?)</td>
<td>…cubits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+4 (=21?)</td>
<td>6 cubits, 1 palm, 2 fingers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+5 (=22?)</td>
<td>…cubits…</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+1 (=28?)</td>
<td>3 cubits, 1 palm, 2 fingers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+2 (=29?)</td>
<td>4 cubits, 1 span</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+3 (=30?)</td>
<td>8 cubits, 3 fingers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+4 (=31?)</td>
<td>3 cubits, 1 span</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+5 (=32?)</td>
<td>5 cubits, 2 palms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+6 (=33?)</td>
<td>5 cubits, 1 palm, 2 fingers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+7 (=34?)</td>
<td>4 cubits, 2 palms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+8 (=35?)</td>
<td>2 cubits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+9 (=36?)</td>
<td>5 cubits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+10 (=37?)</td>
<td>4 cubits, 1 span</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+11 (=38?)</td>
<td>6 cubits, 1 palm, 2 fingers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+12 (=39?)</td>
<td>2 cubits, 1 span</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+13 (=40?)</td>
<td>3 cubits, 5 palms, 2 fingers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year X+14 (=41?)</td>
<td>…</td>
</tr>
<tr>
<td></td>
<td>Horus Andiyeb2</td>
<td>Year X+1</td>
<td>…</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 1</td>
<td>4 cubits, 4 palms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 2</td>
<td>4 cubits…4(?) palms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 3</td>
<td>4 cubits,…palms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 4</td>
<td>4 cubits,…palms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 5</td>
<td>…</td>
</tr>
</tbody>
</table>

1 Horus Den (Wedimu), [King Zemti whose] mother [was Me]ryet[-Neith].
2 Horus Andiyeb or Adjib (Enezib), King of Upper and Lower Egypt, Merpibia?
### Second Dynasty

<table>
<thead>
<tr>
<th>Year</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 6</td>
<td>4 cubits, 4 palms</td>
</tr>
<tr>
<td>Year 7</td>
<td>4 cubits, … palms</td>
</tr>
<tr>
<td>Year 8</td>
<td>4 cubits, … palms</td>
</tr>
<tr>
<td>Year 9</td>
<td>…</td>
</tr>
<tr>
<td>Year 1</td>
<td>…</td>
</tr>
</tbody>
</table>

#### Horus Hetepsekhemuy
- Year X+1 (=6?): (no part on fragments)
- Year X+2 (=7?): 3 cubits, 4 palms, 2 fingers
- Year X+3 (=8?): 4 cubits, 2 fingers
- Year X+4 (=9?): 4 cubits, 1 palm, 2 fingers
- Year X+5 (=10?): 4 cubits, 4 palms
- Year X+6 (=11?): 3 cubits, 4 palms, 2 fingers
- Year X+7 (=12?): 4 cubits, 3 fingers
- Year X+8 (=13?): 4 cubits, 3 fingers
- Year X+9 (=14?): 1 cubit
- Year X+10 (=15?): 3 cubits, 4 palms, 3 fingers
- Year X+11 (=16?): 3 cubits, 5 palms, 2 fingers
- Year X+12 (=17?): 2 cubits, 2 fingers
- Year X+13 (=18?): 2 cubits, 2 fingers
- Year X+14 (=19?): 3 cubits
- Year X+15 (=20?): …
- Year X+16 (=21?): …

#### Horus Nebre
- Year X+1 (=6?): (no part on fragments)
- Year X+2 (=7?): …

#### Horus Ninetjer
- Year X+1 (=6?): …
- Year X+2 (=7?): 3 cubits, 4 palms, 2 fingers
- Year X+3 (=8?): 4 cubits, 2 fingers
- Year X+4 (=9?): 4 cubits, 1 palm, 2 fingers
- Year X+5 (=10?): 4 cubits, 4 palms
- Year X+6 (=11?): 3 cubits, 4 palms, 2 fingers
- Year X+7 (=12?): 4 cubits, 3 fingers
- Year X+8 (=13?): 4 cubits, 3 fingers
- Year X+9 (=14?): 1 cubit
- Year X+10 (=15?): 3 cubits, 4 palms, 3 fingers
- Year X+11 (=16?): 3 cubits, 5 palms, 2 fingers
- Year X+12 (=17?): 2 cubits, 2 fingers
- Year X+13 (=18?): 2 cubits, 2 fingers
- Year X+14 (=19?): 3 cubits
- Year X+15 (=20?): …
- Year X+16 (=21?): …

#### Third Dynasty

<table>
<thead>
<tr>
<th>Year</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year X+1 (=3?): …</td>
<td></td>
</tr>
</tbody>
</table>

#### Horus Zanakht, King Nebka?  
- Year X+2 (=4?): 3 cubits, 6 palms, 2 fingers
- Year X+3 (=5?): 3 cubits, 1 palm
- Year X+4 (=6?): [2+1] 1 cubits
- Year Y+1 (=12?): 2 cubits, 4 palms, 1 ½ fingers
- Year Y+2 (=13?): 2 cubits, 3 palms, 1 finger
- Year Y+3 (=14?): 3 2/3 cubits
- Year Y+4 (=15?): 2 cubits, 6 palms, 2 ½ fingers
- Year Y+5 (=16?): 4 cubits, 2 palms, 2 2/3 fingers
- Year Y+6 (=17?): 4 cubits, 2 palms
- Year Y+7 (=18?): …

#### Horus Netjeri-khet, King Djoser  
- Year 1 4 cubits, 2 palms, 2 2/3 fingers

#### Horus Sekhemkhet, King Djoser-tety  
- Six years (quite unreadable)

#### Horus Khaba(?), King -- kal  
- Two years? (unreadable)

#### Fourth Dynasty

<table>
<thead>
<tr>
<th>Year</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year X+1 (=4?): (no part of this reign on any fragments) 3 cubits</td>
<td></td>
</tr>
</tbody>
</table>

#### King Huny
- Year X+2 (=5?): 3 cubits, 5 palms
- Year Y+1 (=10?): …
- Year Z+1 (=12?): …
- Year Z+2 (=13?): 2 cubits, 2 fingers (or perhaps 1 ½)
- Year Z+3 (=14?): 5 cubits, 1 palm, 1 finger
- Year Z+4 (=15?): 2 cubits, 2 palms, 2 ¼ fingers
- Year Z+5 (=16?): …
- Year W+1 …cubits, 2 palms
- Year W+2 …

#### Horus Medjed, King Khufu
- Year W+1 3 cubits, 6 palms, 3 ½ fingers

---

3 Horus Ninetjer, Son of Nub-[Nufer]…  
4 Horus Nebmaat, King Smafer, the son of Merlisankh.
| King                   | Year X+1   | Year X+2   | Year X+3   | Year Y+1   | Year Z+1   | Year Z+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   | Year X+2   |
|-----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| King Djedefre         |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| King Menkaure (Mycerinus) | Year X+1   |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| King Shepseskap       |            |            |            | Year Y+1   |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| King Weserkaf         |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| King Sahure           |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| King Neferirkare      |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |

5 [Horus Medjed, King of Upper and Lower Egypt, Khufu (=Cheops) whose] mother [was Hetepheres].
### Appendix 3: Measurements from the Cairo Nilometer

From Popper 1951:105:

<table>
<thead>
<tr>
<th>Cubits</th>
<th>Number of fingers per cubit</th>
<th>Size of cubits (in meters)</th>
<th>Size of fingers (in meters)</th>
<th>Zero above floor of well (in meters)</th>
<th>Zero above Mediterranean (in meters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale I, 641-1522 AD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-XII</td>
<td>28</td>
<td>0,539</td>
<td>0,0192</td>
<td>0</td>
<td>8,15</td>
</tr>
<tr>
<td>XIII-XXI</td>
<td>24</td>
<td>0,462</td>
<td>0,0192</td>
<td>0</td>
<td>8,15</td>
</tr>
<tr>
<td>Scale II, 1523-1860 AD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-IX</td>
<td>24</td>
<td>0,541</td>
<td>0,0225</td>
<td>1,62</td>
<td>9,77</td>
</tr>
<tr>
<td>X-XXVII</td>
<td>24</td>
<td>0,361</td>
<td>0,015</td>
<td>1,62</td>
<td>9,77</td>
</tr>
<tr>
<td>Scale III, 1861-1890 AD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-XVI</td>
<td>24</td>
<td>0,541</td>
<td>0,0225</td>
<td>0,66</td>
<td>8,81</td>
</tr>
<tr>
<td>XVII-XXII</td>
<td>24</td>
<td>0,271</td>
<td>0,0113</td>
<td>0,66</td>
<td>8,81</td>
</tr>
<tr>
<td>XXIII-XXVI</td>
<td>24</td>
<td>0,541</td>
<td>0,0225</td>
<td>0,66</td>
<td>8,81</td>
</tr>
</tbody>
</table>

Maximum levels by periods (Popper 1951:166):

<table>
<thead>
<tr>
<th>Years AD</th>
<th>Above floor of well (inches)</th>
<th>Above zero of column (inches)</th>
<th>Above floor of well Cu手指</th>
<th>Above zero of column Cu手指</th>
<th>Above Mediterranean meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>641-850</td>
<td>337.5</td>
<td>311.5</td>
<td>16:13½</td>
<td>14:20</td>
<td>16.72</td>
</tr>
<tr>
<td>851-1040</td>
<td>340.1</td>
<td>314.1</td>
<td>16:20½</td>
<td>14:23½</td>
<td>16.79</td>
</tr>
<tr>
<td>1041-1080</td>
<td>345.9</td>
<td>319.9</td>
<td>17:00½</td>
<td>15:06</td>
<td>16.94</td>
</tr>
<tr>
<td>1081-1250</td>
<td>352.0</td>
<td>326.0</td>
<td>17:08½</td>
<td>15:12½</td>
<td>17.09</td>
</tr>
<tr>
<td>1251-1330</td>
<td>352.9</td>
<td>326.9</td>
<td>17:09½</td>
<td>15:13½</td>
<td>17.11</td>
</tr>
<tr>
<td>1331-1380</td>
<td>362.2</td>
<td>336.2</td>
<td>17:22</td>
<td>16:00</td>
<td>17.35</td>
</tr>
<tr>
<td>1381-1522</td>
<td>384.4</td>
<td>358.4</td>
<td>19:03½</td>
<td>18:03</td>
<td>17.91</td>
</tr>
<tr>
<td>1587-1625</td>
<td>429.8</td>
<td>403.8</td>
<td>21:15</td>
<td>22:04½</td>
<td>19.07</td>
</tr>
<tr>
<td>1659-1720</td>
<td>435.1</td>
<td>409.1</td>
<td>21:22</td>
<td>22:10½</td>
<td>19.20</td>
</tr>
<tr>
<td>1721-1840</td>
<td>439.5</td>
<td>413.5</td>
<td>22:04</td>
<td>22:15</td>
<td>19.30</td>
</tr>
<tr>
<td>1841-1890</td>
<td>452.8</td>
<td>426.8</td>
<td>22:21½</td>
<td>23:06</td>
<td>19.65</td>
</tr>
</tbody>
</table>

Minimum levels by periods (Popper 1951:181):

<table>
<thead>
<tr>
<th>Years AD</th>
<th>Above floor of well (inches)</th>
<th>Above zero of column (inches)</th>
<th>Above floor of well Cu手指</th>
<th>Above zero of column Cu手指</th>
<th>Above Mediterranean meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>641-850</td>
<td>87.9</td>
<td>61.9</td>
<td>4:04</td>
<td>2:21 1/3</td>
<td>10.37</td>
</tr>
<tr>
<td>851-1040</td>
<td>102.9</td>
<td>76.9</td>
<td>4:24</td>
<td>3:15</td>
<td>10.76</td>
</tr>
<tr>
<td>1041-1080</td>
<td>109.0</td>
<td>83.0</td>
<td>5:04</td>
<td>3:21 1/3</td>
<td>10.91</td>
</tr>
<tr>
<td>1080-1250</td>
<td>122.4</td>
<td>96.4</td>
<td>5:21½</td>
<td>4:13</td>
<td>11.26</td>
</tr>
<tr>
<td>1251-1330</td>
<td>98.4</td>
<td>72.4</td>
<td>6:03</td>
<td>3:09 4/5</td>
<td>10.65</td>
</tr>
<tr>
<td>1331-1380</td>
<td>113.8</td>
<td>87.8</td>
<td>7:14</td>
<td>4:03</td>
<td>11.04</td>
</tr>
<tr>
<td>1381-1522</td>
<td>129.7</td>
<td>103.7</td>
<td>8:09½</td>
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<td>1587-1625</td>
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<td>1841-1890</td>
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<td>167.6</td>
<td>12:21½</td>
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Minima and maxima subperiods (Popper 1951:183):

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<th>Main periods (years AD)</th>
<th>Subperiods Years AD</th>
<th>Minimum (inches)</th>
<th>Maximum (inches)</th>
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<td>1870-1890</td>
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Blackman, A. M. 1924. The Rite of Opening the Mouth in Ancient Egypt and Babylonia. The Journal of Literature


