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Hydrology and Empire: The Nile, Water Imperialism and the Partition of Africa

Terje Tvedt

Why did the British march up the Nile in the 1890s? The answers to this crucial question of imperial historiography have direct relevance for narratives and theories about imperialism, in general, and the partition of Africa in the nineteenth century, in particular. They will also influence our understanding of some of the main issues in the modern history of the whole region, including state developments and resource utilisation. This article presents an alternative to dominant interpretations of the partition of Africa and the role of British Nile policies in this context. It differs from mainstream diplomatic history, which dominates this research field, in its emphasis on how geographical factors and the hydrological characteristics of the Nile influenced and framed British thinking and actions in the region. Realising the importance of such factors and the specific character of the regional water system does not imply less attention to traditional diplomatic correspondence or to the role of individual imperial entrepreneurs. The strength of this analytical approach theoretically is that it makes it possible to locate the intentions and acts of historical subjects within specific geographical contexts. Empirically, it opens up a whole new set of source material, embedding the reconstruction of the British Nile discourse in a world of Nile plans, water works and hydrological discourses.

River System and Water Imperialism

In the voluminous literature on the partition of Africa and the role of the Nile quest in this context, European rivalry has by and large been interpreted as a necessary and sufficient cause for British expansionism in the Nile basin.[1] The most influential theory has been the one suggested by Robinson and Gallagher, among others. The occupation of Egypt began a domino process which led Britain into Uganda, Kenya and ultimately to the conquest of Sudan. Britain was primarily concerned with preventing other European powers, particularly Germany and France, from muscling into London's

Correspondence to: Terje Tvedt, Department of Geography, University of Bergen, Bergen, Norway. Email: terje.tvedt@global.uib.no

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spheres of interest. As a result of this fear or concern, the argument goes that during the last 10 years of the nineteenth century, Britain occupied or annexed Sudan and Uganda. The prime object was defensive: the prevention of serious inroads on British power. Britain was not an instigator in the scramble for Africa, but it responded to the actions of other forces. It was not interested in the areas that it took control over as such. Others have shown that there were actors who argued in favour of British expansion into the African interior, because they thought that the area held a bounty of ivory and other riches just waiting to be harvested. William Mackinnon's imperial ambitions and his backing of the Emin Pasha Expedition is a case in point. He wanted to open up northern Uganda and southern Sudan for trade, but the fact is that the Nile basin strategists, the British government in London and Cromer in Cairo, did not back this effort at the time. They did not harbour such more conventional imperial dreams for the Great Lakes Region or southern Sudan. Alternative perspectives have later been put forth in a number of studies which argued that patterns of African resistance and collaboration shaped the nature of the partition.

But the argument in this article about British Nile imperialism shows that the British advances into tropical Africa from Egypt were a kind of expansionism that went far ahead of conventional commercial expansion, because their aims were essentially hydrological and related to Nile control upstream and/or the benefit of British economic interests in Egypt. The partition did, therefore, not accompany, but it preceded the invasion of tropical Africa by the trader and the official. It was not regional commercial expansion that required the extension of territorial claims, as one school of interpretation of colonialism has argued is typical for imperial policies, but the extension of territorial claims which in time required commercial expansion. Therefore, African resistance and collaboration did not in any important sense influence the direction of the partition of East Africa and the Nile basin. It was the importance and the nature of the River Nile that made London to see rational economic and geopolitical arguments for taking control of the Nile upstream of Egypt.

This article argues that although the European 'fear factor' was an element in British diplomacy in the region, it cannot explain the continuities and shifts in British Sudan policy in the 1880s and 1890s or make intelligible the historical documents that clearly demonstrate the existence of persistent plans for British hydro-imperialism in the Nile valley irrespective of what other European states were up to. It was primarily the combined impact of the importance and potentials of Egypt's irrigation economy under British leadership after 1882 and the repercussions of a growing water crisis in Egypt in the late 1880 and 1890s that shaped the destiny of Sudan and the rest of the Upper Nile in the late 1890s.[2]

Whereas it has been conventionally claimed that it was the 'frontiers of fear' on the move that motivated the British march upstream,[3] this article argues that the *limits of irrigation water* in Egypt, on the one hand, and the abundance of such Nile waters waiting to be controlled, for the benefit of Egypt and cotton cultivation, made upstream expansion a very rational imperial strategy. This article will argue that southern Sudan was regarded as a *barrel filled with water* and not as the 'bottom of the barrel' by the British strategists, as this region has been commonly

described in the literature on the occupation.[4] This region possessed a lot of water which could very profitably be used to enlarge the cotton farms in Egypt, and the waters of the White Nile running through one of the biggest wetlands in the world were described by the leading water planners as more valuable than gold.[5] Sudan, where the two Niles meet, was the very key to the planned development of Egypt and its cotton industry due to its geographical location in the Nile basin. Conceiving and portraying Sudan as a 'buffer state' between European rivals are, therefore, for this reason misleading.[6] The British had grandiose schemes for controlling the waters of the longest and most famous river in the world with the most modern technology available at the time. These plans were not grounded in a 'defensive psychology' but in feelings of imperial strength and modernising confidence. Instead of a theory that 'suggests the kind of defensive imperialism that extends beyond the areas of expanding economy but acts for their strategic protection',[7] this analysis suggests that the British Nile policy was a kind of promethean hydro-political river imperialism. It was an imperialism that extended beyond the areas of expanding economy and that acted for Egypt's continued agricultural and economic development by exploiting the region's most important resource and geopolitical factor.

In order to understand why the British were so obsessed with control of the Nile, why they were more interested in the modest White Nile than in the mighty Blue Nile and why they thought it was just a question of time before they had to occupy Sudan, it is necessary to understand the character of the regional water system. Only then will it become possible to acknowledge that the basin-wide water system framed what imperial strategy was possible and rational. Egypt, downstream on a river running through three major climatic zones and what are now ten countries before it reaches its borders, was basically a desert. About 97 per cent of the people lived along the banks of the river, and the economy was totally dependent on river water and river control in some form or another. Egypt had been the granary of the Roman Empire and was now a giant cotton farm of the British Empire. The need to even out the annual and especially the seasonal variations of river discharges was obvious, since about two-thirds of the entire yearly flow flushed down during some three months in autumn, while the remaining third came down to the dry lands during the rest of the nine months. The profitable cotton season was in summer, when the natural river flow was at its lowest. Almost all the waters, about 80 per cent, during this Sefi season came from the White Nile, mostly due to the natural storage role of the immense swamps of southern Sudan and the relatively regular outflow of the Central African Lakes. The British were familiar with this knowledge, and thus they understood that the White Nile, or the Bahr al-Jabal and Bahr al-Zaraf as the tributaries that formed the White Nile south of Kosti were called in Arabic, was the most important tributary. The Blue Nile and the other Ethiopian tributaries contributed more than 80 per cent of the annual average at Aswan, but it was at the time technologically impossible to tame them due to the high amount of silt load in the flood waters. Since the watering of the fields in Egypt and the flood security and economic stability of the country depended on Nile control, few questions

were of higher importance to the British administration than knowledge of how much water would flow into Egypt at any time of the year before it reached the border and the plots of the fellahin.

The emphasis on water management focuses on a whole new class of historical sources and documents. Archives in Khartoum, Durham, Cairo and London hold huge number of sources dealing with the Nile and Nile control. The annual reports written by Her Majesty's Agent in Egypt between 1883 and 1907, Lord Cromer, the 'puppet master' of Egyptian politics during a couple of decades, letters and minutes of discussions between Cromer and the Foreign Office and ministers in London, the private papers of the leading British actors in the Nile valley from Alexandra to Entebbe, the extensive Nile discourse and number of Nile plans and Nile actions clearly show that the Nile campaign of the 1890s was no step in the dark. The British strategists were knowledgeable about Nile hydrology and Nile valley geology, and their expansionist policies were driven by a complex mixture of economic and political considerations, basically influenced by the structuring capabilities of Nile's geographical, physical and hydrological characteristics.

'*The Egyptian Question is the Irrigation Question*'

In the early 1890s, the British government in London and Lord Cromer and his administration in Egypt had already for some years understood the consequences of being the ruler of a hydraulic society whose development was totally dependent on the Nile waters. All rulers of Egypt had experienced that the provision of enough water for the crops had been fundamental in achieving political stability and economic prosperity. The British rulers realised that the degree of security and stability hinged on their ability to develop the Nile. Egypt had also become more and more important as a cotton producer for the still very important Lancashire textile industry, partly because of the repercussions of the American civil war and partly because of the good cotton produced in the land of the Nile. The then Egyptian Prime Minister Nubar Pasha (1884–1888 and 1894–1895) summarised the situation in a famous one-liner: 'The Egyptian question is the irrigation question.'[8] Words and deeds show that the British concurred and understood the implications of this Nile dependency; they knew that a downstream hydraulic state on this very long river simply had to develop its life artery—both in Egypt and upstream of its borders to survive and thrive.

The British administration under Lord Cromer understood this from the very beginning. One of the first actions that he took was to bring experienced water engineers from India, where river control works had for decades been a priority of the British administration. The demand for more summer water in the 1880s and early 1890s was heard from all corners of the Egyptian society and from influential pressure groups, such as the cotton lobby, in Britain, as well. In Egypt, the most powerful foreign trade agencies dealt in cotton.[9] The big landowners owned about two-thirds of the cotton harvest. The population doubled during a few decades and reached almost ten million in 1897, and the growing number of poor peasants put pressure

on the government for more reliable water supplies. In England, the cotton industry in Lancashire was searching for ways to reduce its dependency on American cotton, and imports of cheaper but very good cotton from Egypt became more and more important. In addition, British banks had strong and growing interest in a thriving Egyptian economy, mainly because in 1882 Egypt's foreign debt had increased to 100 million pounds, and the annual debt servicing amounted to five million pounds,[10] of which, a great part went to Britain. Egypt's ability to pay back the loans to British banks depended to a large extent on cotton exports and the value of agricultural land. A telling contemporary reflection of this 'Nile water awareness' in London was the fact that *The Times* reported regularly on the water discharges of the Nile![11] Thus, the general political and economic development and the changes in the world trade patterns of cotton led to mounting pressure on the British rulers in Cairo to provide more water to the fertile, but dry lands along the banks of the Nile.

The British had barely planted their flag on the shores of the Nile before they were met by concrete demands for large hydraulic enterprises.[12] With a growing water demand, on the one hand, and a river far from being harnessed, on the other hand, any administration in Egypt in late nineteenth century would have been obliged to make increased water control a top priority. An overriding question became: How to increase the Nile yield in the 'timely season', that is, during the summer season, when cotton was grown and the natural Nile discharge was at its lowest? How to protect the agricultural lands against devastating floods? How to dam the excess water in September, October and November for utilisation in the season of scarcity? How to construct dams which could reduce the differences in the yearly discharge fluctuations? Narrowing the gap between accessibility and demand for water was a permanent worry to the British. The complexities of this task increased as perennial irrigation spread and demonstrated its economic potentials. As the British faced rising expectations, their legitimacy as rulers of an irrigation society required that they succeeded in narrowing the growing gap between water demand and supply. At first, the water engineers concentrated on what could be done with the river in Egypt by improving existing irrigation facilities and building some new water controlling structures within the borders of Egypt.

Nile Works in Egypt in the 1880s and 1890s

Egyptian agriculture had undergone important transformations in the decades prior to the British invasion in 1882 because of a revolution in irrigation methods. The old system of flood irrigation had been replaced by all-year irrigation. Perennial irrigation on a larger scale had started under Mohammed Ali. He developed an agricultural strategy based on an assessment of Egypt as having the perfect climate, fertile soil and an abundance of people; the problem was water. In 1820, cotton production and exports were negligible, whereas after the Delta barrages had been built and new canals dug in the middle of the nineteenth century, cotton made up about 80 per cent of Egypt's total exports from 1860s onwards. These water works fell into disrepair in the following decades for a number of reasons and were further damaged during

the failed nationalist rebellion against the British. After the occupation, and under Cromer's watchful eyes, the priority first became repair and improvement of the existing irrigation system.[13]

A series of important though smaller projects were completed, such as remodelling of the Upper Egypt basin, cleaning and digging up deposited silt in the canals and starting operations at the Mex Pumping Station. Altogether, these works and a more efficient management organisation of the irrigation sector and a better system of drainage and crop rotation contributed to the doubling of the cotton production from 1888 to 1892.[14] In 1891, the British repaired and made functional the Delta-barrage system just north of Cairo. It extended the area over which cotton could be grown and it reduced the amount of labour required to convey a given amount of water to the field. Perennial irrigation was now possible over the entire cultivated area of the Delta. It proved a great material advantage to Egypt and it also led to the abolition of the *corvee*.[15] As long as this work within the borders of Egypt was the priority of the Ministry of Public Works, and the government at the same time had grave financial difficulties, there was neither capacity nor need to look upstream of Egypt for a more efficient way of using the Nile waters.

In the early 1890s, however, the upper limit for expansion within the existing Nile control system had been reached. The character of the yearly and seasonal discharge fluctuations of the river, and thus of water in the irrigation canals, demonstrated that the existing water control system, despite the efforts to improve it, did not even always satisfy actual demand, with grave economic consequences for the cotton industry. In 1888, for instance, about 250,000 acres in Upper Egypt received no irrigation water.[16] The irrigation officers reported to Cromer the same year that the spirit of resistance against the British presence was 'stronger now than ever'.[17] In other years, the seasonal autumn flood caused great damage to the harvest and the economy in general, since the flood control system was not very different from what it had been for centuries.

The combination of the great potentials of the irrigation economy and ambitious plans for more profitable cotton farms, on the one hand, and the actual growing water gap, on the other hand, asked for more revolutionary initiatives and developments in water control. In the early 1890s, an Egyptian Nile discourse developed; speeches were held and plans were put forward and debated, reflecting this feeling of a growing water crisis in Egypt. J. C. P. Ross, former Inspector-General of the Egyptian Irrigation Service, summarised this attitude, when he wrote in 1893: 'We have now arrived at a stage in the summer irrigation of Egypt where the available natural supply has been completely exhausted, and there still remains more land to grow cotton.'[18] Both the years 1889 and 1890 had experienced exceptionally bad summer supply due to low natural river discharges, immediately causing great falls in profits and increased danger of political unrest. Water works of an altogether new type and technology were required and considered. It became increasingly evident that the age-old system of flood irrigation, or basin irrigation, and the primitive system of summer irrigation, basically being a clever adaptation to the seasonal fluctuations of the Nile, had become insufficient and that these hydrological fluctuations had to be controlled and

evened out. Scott-Moncrieff, the Under-Secretary of the Ministry of Public Works, decided that a detailed study of reservoir sites should be a top priority. In 1894, the *Report on Perennial Irrigation and Flood Protection of Egypt* was published by the Government, after having been secretly circulated in 1893.[19] It estimated the future annual need for summer water at 3,610,000 m^3.[20] It asserted that if irrigation were introduced in Upper Egypt, where agriculture still depended on the basin system, and improved in Lower Egypt, the annual income would rise from 32,315,000 Egyptian pounds to 38,540,000 pounds.[21] This report, which was produced the year before the occupation of Uganda in 1894, led to the overshadowing political and administrative question: How to secure over 3.5 billion m^3 of irrigation water in the summer season, creating an estimated net gain of 6,225,000 pounds to the country per year? And how—at the same time— to defend the country against devastating floods?

The most concrete suggestion of the 1894 report was to build the reservoir at Aswan in Upper Egypt, which already had been discussed by the government. This large reservoir, which would be by far the biggest in the world at the time, was, however, seen as a temporary solution only, because the planned capacity satisfied only half of Egypt's estimated needs. The Council of Ministers in Egypt discussed, for example, in a meeting on 3 June 1894, possible dam sites in Sudan, as if it was no obstacle that the dams should be built in another country.[22] In line with this, Cromer wrote the same year that the Aswan dam within Egypt's borders may 'at some future time, (...) perhaps be supplemented by another dam south of Wady Halfa',[23] that is, in Sudan. And William Garstin, Cromer's right-hand man, underlined in his annual report (1894) that the 'construction of a second ... (dam) ... to the south will be merely a question of time'.[24] He further wrote that 'we may confidently predict' that the Egyptian dam will be 'only one of a chain which will eventually extend from the First Cataract to the junction of the White and Blue Niles'.[25] William Willcocks, the main architect behind the dam, stated what for the water planners must have been obvious; the 'infinitely better and more reliable' flood protection for Egypt was to 'control the Nile before it enters Egypt'.[26]

The importance of this 'chain' of water works upstream became a much more pressing issue when it was realised that the planned storage capacity of the Egyptian Aswan dam, 2,550,000,000 m^3 of water, had to be drastically reduced due to technical difficulties in damming the silt-laden flood waters of the Nile. Additionally, unexpected political problems arose. In autumn 1894, just after the new report was published,[27] archaeological groups in France and Great Britain united in demanding a lower water level in the dam than planned, in order to save the ancient temple at Philæ close to Aswan from inundation.[28] This opposition was so strong that it forced the government in Cairo to yield and to amend its 1894 plan. The capacity was therefore, according to Garstin, reduced with more than 50 per cent to 1,065,000,000 m^3.[29] The reservoir could, therefore, meet only 25 per cent of Egypt's future needs.[30]

According to Garstin, the reduction implied that 2,610 billion m^3 had to be supplied from elsewhere.[31] This 'elsewhere' could, of course, for geographical and hydrological reasons, not be along the Nile in Egypt, first and foremost because of the silt which the Blue Nile and Atbara carried from the Ethiopian highlands. This sedimentation

problem also excluded 'any hope of constructing solid dams of the ordinary type in the valley of the Nile downstream of the Atbara junction'.[32] The Nile could thus, it was thought at the time, only be profitably dammed and controlled upstream. The reduction of the Aswan dam in size and storage made the question of upstream expansion and control a much more pressing issue.

Water Plans for the Upper Nile

From the very beginning, the water planners knew that an Aswan dam within the borders of Egypt could not be operated rationally without better and more exact knowledge of the Nile upstream and in Sudan. Precise hydrological information on the tributaries' fluctuations before the main Nile reached the reservoir was absolutely necessary. In 1894, Willcocks showed that the time that the waters took to flow between Khartoum and Aswan was only '10 days in flood and between Aswan and Cairo only five days'. Obviously, proper management of the reservoir and the reservoir gates— especially since it should only store the tail end of the floods—therefore required a number of gauging stations along the Nile and its tributaries in Sudan, as well as the re-establishment of a working Nilometer in Khartoum at the junction of the Blue and White Niles. Already in 1882, before the era of reservoirs, major Mason-Bey had shown the necessity for establishing more Nilometers at both the main Nile and its tributaries in Sudan for planning purposes in Egypt.[33] In May 1893, the Societé Khédival de Géographie discussed in detail the information on water discharges collected at the gauging stations in Sudan, established on the order of Ismail, from the time when, as they expressed it, 'the Sudan was not closed'.[34] The need for more hydrological information was felt so pressing that immediately after the British gained control of the Lake Victoria area in 1894, Cairo asked the government there, through the Foreign Office in London, to erect and read a gauge on Lake Victoria.[35] Until 1885, Egypt had daily received information by telegraph from the Nilometer at Khartoum,[36] and in 1875, a station was erected close to the village Dakla in order to measure the Atbara.[37] The 'fall of Gordon' in 1885 was dramatic and caught the attention of the day (and of historians later on), but the loss of the Nilometer at Khartoum represented a more direct threat to Egypt, because it jeopardised the optimal management of the irrigation system.[38] However, what by the water planners in Cairo was considered a great loss already in 1885 had far greater consequences in the mid-1890s because of the growing water gap and the vulnerability of the new crop rotation system and because of the more exact hydrological information required for the planned big reservoirs. Willcocks wrote in 1893: 'As Egypt possesses no barometric, thermometric, or rain gauge stations in the valley of the Nile, we are always ignorant of the coming flood'.[39]

The British hydrologists and engineers had at the time no in-depth knowledge of Nile's upper reaches. Ross wrote that 'unfortunately the Dervishes prevent any scientific examination' of the Nile upstream.[40] Scott-Moncrieff complained while lecturing in London in 1895 that he, like his audience, had to go to 'the works of Speke, Baker, Stanley and our other great explorers' for information regarding anything higher up

than Philæ and said that 'if a foreigner were to lecture to his countrymen about the river Thames, and were to begin by informing them that he had never been above Greenwich, he might be looked upon as an imposter'.[41] William Garstin described these years when it came to hydrological studies as if 'the thick veil had settled down on the Upper Nile'.[42]

By looking into a whole new class of historical sources dealing with Nile planning and Nile management, it becomes evident that several years before the Sudan campaign started, Cromer's water engineers in charge of the Ministry of Public Works, as Scott-Moncrieff, Ross, Willcocks and Garstin, were discussing the necessity of controlling the Nile upstream of Egypt. A central vision in the government report of 1894 was that the hydrological features of the Nile and the future increase in summer water demand would require the regulation of the Nile south of Egypt, even as far as Lake Albert and Lake Victoria. Willcocks wrote that what 'the Italian Lakes are to the plains of Lombardy, Lake Albert is to the land of Egypt'.[43] By damming the lake(s), 'a constant and plentiful supply of water to the Nile valley during the summer months' could be insured.[44] 'There alone', he wrote, 'we deal with quantities of water which approach' the demand.[45] The previous year Ross had speculated along similar lines. He envisaged that by raising the water level of Lake Victoria by only one metre, one would get a water flow in the Nile which was '30 times more than wanted'.[46] In 1894, London took military control over the African lakes that some decades before had been 'discovered' by Speke, Burton and Baker, named Lake Victoria and Lake Albert by them.[47] No administration in Cairo would ever consider regulating Lake Victoria, a lake roughly the size of Scotland, without controlling the area of the dam and without improving White Nile's water transport capacity in southern Sudan due to the river's natural water losses there. Garstin and Willcocks knew that *sadd* was blocking the river[48] and that the White Nile lost huge amounts of waters on its way through the swamps in southern Sudan.[49] They knew very well that it would be impossible to improve the knowledge of the Nile unless the river was cleared of *sadd*.

In southern Sudan, the British were, therefore, not scraping the 'bottom of the barrel'.[50] This part of the Nile basin was, on the contrary, filled with extremely valuable summer water. Because of these hydrological characteristics, this area needed to be controlled, according to Cromer and his water experts, both politically and water management wise from London and Cairo. London was not making ready for war for the mastery of these 'deserts',[51] but because it needed the Nile water of the area. The occupation of southern Sudan was, therefore, not 'an imperialism without impetus'.[52]

Planning for the optimal usage of the Nile waters inspired thoughts about the Nile as one river basin and that it should be under one political planning authority. The sheer magnitude of the task made the water planners compare themselves with the already famous British names in the Nile history. The discovery of the sources of the Nile had brought fame to their countrymen Speke, Grant and Baker. Now Garstin, Scott-Moncrieff and Willcocks could follow in their steps, and they could even 'take the river in hand'.[53] In 1984, Willcocks likened directly their plans for the Nile as a worthy follow-up of these British discoveries. Garstin later wrote that if they succeeded in taming the Nile, such an accomplishment could be compared

with the building of the pyramids.[54] But the fact was that important sections of the Nile River were outside their domain, in what were still other countries. In 1895, Scott-Moncrieff summed up the 'Nile vision' of the water planners when he said:

> Is it not evident, then, that the Nile from the Victoria Nyanza to the Mediterranean should be under one rule?[55]

The British Nile Strategy

Cromer wrote in his *Modern Egypt* that a central motive behind the occupation of Sudan had been 'the effective control of the waters of the Nile from the Equatorial Lakes to the sea'.[56] Full of confidence in his imperial Nile strategy, he wrote

> When, eventually, the waters of the Nile, from the Lakes to the sea, are brought fully under control, it will be possible to boast that Man, in this case the Englishman, has turned the gifts of Nature to the best possible advantage.[57]

The first decades of British rule on the Nile were by later irrigation advisors termed the 'Cromer–Garstin regime',[58] a regime where the most powerful politician and the most powerful water planner developed a consistent and overall strategy and a plan for Britain as a Nile River Empire. Garstin's department was given an exceptional degree of autonomy and was deliberately shielded from the intervention by other European interests in Cairo and staffed with a number of British experts.[59] Cromer later wrote that these expenses 'contributed probably more than any one cause to the comparative prosperity' of Egypt[60] and that it ensured no less than 'the solvency of the Egyptian Treasury'.[61] According to Cromer, irrigation works were not only a permanent priority, but also a policy which continuously proved its success.[62] From 1890, every annual report to the government in London enclosed a separate memorandum on the irrigation activities. Everybody seemed to agree

> The best thing the Financial Ministry can do is to place as much money as it can afford at their disposal, (British water planners, my comment), confident that whatever is thus spent will bring in a splendid return.[63]

Summing up British rule from 1882 to 1907, Cromer put hydraulic engineers on equal footing with the army for internal political reasons; they created the situation that made Egypt and Suez safe for the British. While the soldiers held the Egyptians down by force, the water planners conquered their minds, or as his financial adviser put it in 1892: the British engineers secured the support of Egyptian public opinion.[64] They 'justified Western methods to Eastern minds', Cromer wrote.[65] Or as he had written already in 1886: 'the good results of European administration can readily be brought home to the natives'.[66] Two years later, he wrote that British success in Egypt depended on development of the irrigation structure and increased access to summer water.

It was not only the men in charge of Nile development who already in the early 1890s discussed control works on the river in Sudan. In 1891, Cromer wrote a long letter to Prime Minister Salisbury in London on the reservoir question. He said that all

competent authorities agreed that something had to be done, but not on what to be done. He discussed different options; the reservoir might be constructed 'either at Wadi Halfa, or at Kalabalah, or at Assuan, or at Silsileh, or a reservoir might be made in the Wady Raian'.[67] He said that the subject was one of 'utmost importance', because, as Cromer put it, 'the prosperity of Egypt depends wholly on the Nile'.[68] In November 1891, Cromer again informed Salisbury about the importance of the storage question in Egyptian public opinion.[69] In 1893, he telegrammed Rosebery, supporting a circular which had been addressed to the Powers by the Government of His Majesty the Khedive, requesting that the economies 'effected by the conversion of the Debt should be applied to the constructing of reservoirs in Upper Egypt'.[70] He supported the 1894 report and he not only actively backed the plan for the Aswan dam but was also very active in securing money and political backing for its implementation.

As long as it was not clear whether the British were to stay in Egypt, and as long as Egypt had enough water for its summer cultivation, and had no money to finance both reservoirs and wars, Cromer and the London government rejected more adventurous proposals to march southward. Cromer informed London that he disagreed strongly with those who in the 1880s wanted to occupy Sudan. In 1884, he asked whether the English Government intended to establish a settled form of government at Khartoum or not, and he answered himself 'in the negative'.[71] If the aim was to have slavery absolutely abolished in Sudan, a small expeditary force would not be enough, he argued. He ridiculed those in England who publicly argued in favour of such a policy, by stating that then 'you must send an English army to occupy the country'.[72] And nobody was prepared to do that. As late as 1886, he wrote to London saying that all the authorities in Cairo except himself were in favour of an advance to Dongola. He was opposed to making any advance at all at this stage, while the Egyptian authorities, he argued, favoured the idea because they regarded it as a 'first step towards the re-conquest of the Soudan'.[73] London agreed with Cromer's reasoning. It seems clear that both the British government and Cromer were looking for an opportunity which could legitimise the occupation to both Egyptian and British public opinion and that they objected to imperial adventurism but favoured an occupation that could be sustained.

Just before 1890, there are clear evidences that Cromer changed his rhetoric. Now, he wrote about the occupation as being necessary—one day—while still arguing in favour of playing safe to act when time was ripe and the moment was right. In 1890, the British military discussed the occupation of Sudan. There was general agreement that Dongola in northern Sudan, 'from a purely military point of view, could only be of use to us as a stepping stone, as an advanced base for an advance upon Berber or Khartoum'.[74]

The way Cromer and the British government connected the water planners to the military campaign clearly shows his concerns and long-term strategy based on a deep understanding of Nile politics. Some months before British troops occupied the Nile upstream in 1898 and he sent his most senior water planners in their wake all the way up to Lake Victoria and Lake Tana, Cromer wrote to Prime Minister Salisbury: 'There can be no doubt that the *most crying want of the country* (my ital.) at present is an increase in the water supply.'[75] No sooner had the British moved into

Sudan, he sent—in his own view—his most important official in Egypt on an expedition up the Nile. Already in April 1897, Garstin had submitted his report on the Nile cataracts.[76] In the wake of Kitchener's flotilla, Garstin studied the White Nile in 1899, the White Nile, Bahr al-Jabal, Bahr al-Zaraf and Bahr al-Ghazal in 1901 and again in 1904. In 1903, he was in Uganda, along the Semliki River, at Lake Albert and again at Bahr al-Jabal.[77] When Garstin in 1899 proposed to remove the *sadd* in the Bahr al-Jabal which blocked the river's flow, he received immediate financial support from Cromer. Cromer's argument was

> The question of increasing the summer supply of the Nile is, however, of such a vital interest to Egypt, that the present expenditure is fully justified.[78]

In the introduction to Garstin's report from 1904, Cromer gave priority to the plans on the Upper Nile. Cromer suggested that 5.5 million pounds should be allocated for the proposed regulation works in the swamps.[79] The projected cost of the recommended investments is most clearly illustrated when compared to the total cost of Sudan campaigns from 1896 to 1898, that is, 2,345,345 pounds,[80] and compared to the total revenues of Sudan budget in the years 1899–1903, that is, 1,132,000 pounds.[81] Cromer did not, of course, intend to use this money, a sum which surpassed any investment that the British had previously made in the Nile Valley, in the 'bottom of the barrel'.

In March 1898, Cromer wrote Salisbury a long letter on the question of the occupation of Sudan, arguing that he had 'always been fully aware of the desirability of bringing the Soudan back to Egypt'. He even drafted, but deleted the following sentence in the final letter: 'I have, therefore, always looked forward' to the occupation of Sudan. What Cromer awaited was that 'essential conditions' should be there. He wrote, 'The great mistake made by Ismail Pasha was that before he had learnt to administer efficiently the Delta of the Nile, he endeavoured to extend Egyptian territory to the centre of Africa'. His experience should be a 'warning', which had to be told to and taught to the Egyptians, Cromer wrote.[82] His annual reports and his letters to London show that Cromer now thought that the British had learnt how to administer the Delta, and that the economy was sound, and that the demand for more summer water, therefore, was rising. The moment was approaching.

Cromer and London's plan was not easy to accomplish. For economic and political reasons, they wanted Egyptian and not British troops to do most of the fighting. Their aim was that the Egyptian Treasury and not the British Treasury should pay the cost of the conquest. It required political competence and diplomatic abilities to achieve this aim, not the least because there were legal wrangles already over the financing of the Dongola expedition.[83] The Egyptian government under British control had demanded the withdrawal of £E500,000 from this general reserve fund. The International Commission of the Caissse of the Debt in Cairo had allowed the withdrawal by majority vote, only. But Cromer and London succeeded in the end: The campaign was paid by the Egyptian treasury and mostly fought by Egyptian soldiers.

How to justify the occupation over the whole of Sudan to the British, Egyptian and European opinion? London had already 'revenged Gordon' by taking Khartoum. But why move on to the swamps of southern Sudan as well? London was looking for the

right arguments that could get support from Egypt and win over opposition or indifference in Britain. The French threat was a good card, also because French imperialists were talking about sending troops to the Upper Nile area. London found the scapegoat they needed in Captain Marchand. In July 1898, after the Dongola war was over, Cromer attended a Cabinet meeting in London to discuss the Nile valley policy. Salisbury wrote to the Queen about this meeting: 'The other question (of the Cabinet meeting, my comment) was our dealing with the Nile Valley, if, and when, we had taken Khartoum. For this question Lord Cromer attended the Cabinet and gave us the benefits of his views ... He thought that the Egyptian and British flag should float side by side: that the gunboats with Gen. Kitchener and a small force should go up the Nile as far as Fashoda (600 miles): and as much farther as was practicable: and that any other flag in that valley should be moved'.[84] Since Britain's position and military advance depended upon Egyptian support, the sudden appearance of a small group of French soldiers at Fashoda created a golden opportunity: the British could portray themselves as a guardian of Egyptian interest vis-à-vis French imperialism and French opposition to the re-conquest. When the French flag went down at Fashoda and the miserable 'force' of Marchand was forced to leave the Nile basin, Kitchener, therefore, cleverly hailed not only the British but also the Egyptian flag on the shores of the Upper Nile.

Nile Plans and a Railway Man

Many influential historical reconstructions of 'the race to Fashoda' have ascribed to a certain Frenchman working in Egypt, Victor Prompt, a most important role in the imperial rivalry in the Nile Valley.[85] His speeches in the early 1890s are said to have created a sort of 'nightmare' among the British rulers, and it was his speculations and the support that they got in France that made it necessary for Britain to move upstream to stop the French plans for the Nile.

Prompt's ascribed role in the literature about British Nile policies and the Nile Quest of the 1890s is relevant in the context of this article, because the way his speeches have been interpreted and misunderstood is related to the same literature's understanding of the hydrology of the Nile. The reality is that Prompt never did say what historians later have claimed that he said, but more importantly, his whole thinking about Nile control has been misinterpreted. His contemporary influences on British policies have furthermore been greatly exaggerated; Prompt caused no stir among the British at the time and most likely he played an insignificant role, if any, in French policy. In the literature, he has been described as a hydrologist, but he was an engineer who came to Cairo and Egypt in 1889, appointed as *L'Administrateur francais des chemins de fer égyptiens*. It is true that he, as many other people at the time, gave several speeches on the control and utilisation of the Nile.[86] But the interpretations of Prompt's ideas in the literature have been limited to only one of his four speeches, the 'Soudan Nilotique' from January 1893.

In this speech, Prompt's main agenda was to convince his primarily Egyptian audience that *Egypt* should immediately occupy Sudan. The reason behind his proposal

was clear and conventional at the time: by taking control of the Nile south of its borders, Egypt could secure her water supply. He thought that the flow of the Nile was getting less due to changes in its *natural* water discharge or due to natural climatic change. This would have dramatic consequences for Egypt's 'whole existence'.[87]

Egypt should, therefore, reoccupy the whole of the Nile basin. He proposed three reservoirs between Khartoum and Aswan.[88] He also suggested that the Nile should and could be made navigable up to Khartoum.[89] If implemented, he argued that Egypt's military conquest and occupation of Sudan from the north would be facilitated. Prompt also proposed to build a railway from 'de Keneh à Koseir'.[90] He concluded that by urgently implementing these projects,[91] Egypt would benefit by an immense extension of her agricultural area and would be able to abandon old irrigation methods.[92] In an annex to one of his papers, he discussed future irrigation projects in eastern Sudan along the Blue Nile since he argued that Egypt could profit from using excess Blue Nile water there without negative effects on Egypt's water supply during the summer season.

His second speech in 1891 dealt only with reservoirs in Upper Egypt. He said that the reservoir question was unquestionably the single most important issue. The speech offered strong support for the planned Aswan reservoir. In January 1983, Prompt again advocated Egyptian re-occupation of what he significantly called her lost provinces. He offered a broad description of the whole basin and suggested how it best could be exploited for the benefit of Egypt. The third part of his speech had the subtitle: 'Intéréts Agricoles et Commerciaux de l'Égypte dans les contrées que forment le bassin du Nil'.[93] Prompt discussed the pros and cons regarding a barrage at the Equatorial Lakes.[94] This speech did nothing more than discussing reservoir plans that the British published the year after. Prompt wrote that, if desired, one could dam the Nile in Uganda, so as to give Egypt important and much-needed water,[95] a project which, according to him, could not be opposed on sound grounds. Prompt did not suggest that the French should occupy the Upper Nile and build reservoirs there, as later historians have argued. Neither did he support British ambitions there. What he did was to point to the potential threat to Egypt from *British* presence on the headwaters of the White Nile.[96]

Prompt's speeches supported Egyptian expansionism and warned about British intentions upstream. He did not play the French card or speculate that France could throttle Egypt at Fashoda, nor did he suggest that either Fashoda or the Bahr al-Ghazal was the hydrological key point in the Nile basin. Prompt never, in fact, mentioned a dam at Fashoda. Contemporary sources did not pay attention to his speeches, because the ideas were the mainstream in Egypt. A. Silva White's book, dealing with irrigation in Egypt and the importance of basin-wide water development, did not mention Prompt.[97] Nor did Peel's (1969 [1904]) *Binding the Nile*. Cocheris (1903) discusses Prompt,[98] but only in the passing. There is no evidence in the sources that anybody at that time regarded Fashoda as a hydrological 'key point' in the Nile valley.[99] Samuel Baker, for example, who was more familiar with this area than any other European (he had been Ismail's governor of the region in the 1860s, with his headquarters at Fashoda), had many places described the extreme flatness of the

area and that the country around Fashoda was 'dead flat'.[100] In none of his bestseller books published years before is Fashoda even hinted at as a hydrological key point. Shweinfurth's *The Heart of Africa*, another bestseller, described the area in a similar way. Lombardini's description (1865) conveyed the same story and was widely consulted by the British water planners. Emin Pasha (1879) published his diaries concerning the 'Strombarren des Bahr el-Gebel', underlining the flatness of the area.[101] In French, a number of much-read authors from Arnaud to Chelu (1891) showed beyond doubt that if anybody wanted to dam the Nile, he should definitely not attempt to do it at Fashoda. The assumption that has prevailed in the literature that Fashoda was the key or 'the headwaters' of the Nile, or that contemporary British strategists thought that was the case, is simply wrong.[102] A potential French force at Fashoda did, therefore, not represent a threat to the Nile flow. It did not create fear in London but raised an outcry in Egypt, since it struck at the very heart or the very symbol of their lost Nile valley empire, which they were fighting, under the leadership of Abbas II, to get back.

In the early 1890s, the later Lord Lugar, and the future British ruler of Uganda wrote: 'Egypt is indebted for her summer supply of water to the Victoria lake, and a dam built across the river at its outlet from the lake would deprive Egypt of this.'[103] And further wrote: The 'occupation of so distant a point as Uganda would be a fair and just claim to render valid our influence in the Nile basin and beyond'.[104] Finally, he quoted Lord Rosebery, who had said that Uganda commanded 'probably the key to Africa'.[105] In 1894, London took formal and direct control over the African lakes and declared a protectorate over Buganda, in line with Lugard's proposals. It thus ruled that part of this great lake that was considered hydropolitically important, since there was the place where it considered the source of the White Nile to be and there was the place where a dam could be erected. The same year it established a Nilometer at the outlet of the lake, and Cromer and his water planners and hydropoliticians continued working on plans for the entire Nile system.

Geography and Nile Empire

This article has argued that the European rivalry in the upper Nile valley in the 1890s impacted British imperial tactics, but that it was not the fear of the French or of other European powers that primarily motivated British expansion upstream.[106] The British developed during the 1890s a strategy and a diplomatic and military tactic for establishing a River Empire on the Nile. London had two strategic aims: on the one hand, to develop the Nile so as to bolster cotton production and cotton export to Lancaster and the economy in Egypt, since the latter would create stability at Suez. At the same time, London knew that control of the Nile upstream would give Britain leverage against Egyptian nationalists, if need would arise. For diplomatic reasons, the occupation of the Sudan was sold as an Anglo-Egyptian occupation and hence supported by the Egyptian elite and paid for by the Egyptian treasury.

London's and Cromer's grasp of the Nile and the importance of the irrigation question made them fully aware of the fact that if they put their foot upstream they would

also be able to control Egypt politically and that improved Nile control upstream was necessary in order to give Egypt the summer water that the cotton economy and the political stability depended on.

The role of the sadd in decreasing the Nile flow during the summer season, the sediment loads of the Ethiopian tributaries and the relative and different importance of the two main tributaries and their seasonal fluctuations were all issues that were of great practical and political concern to the imperial strategists, and such geographical characteristics framed the manner in which the imperial strategy was implemented.

Notes

[1] For an overview and discussion of the literature on the 'Partition of Africa', see Tvedt, *The River Nile in the Age of the British*; Tvedt, *The Nile*; Tvedt, *The Southern Sudan*.

[2] The interpretation of British Nile policies in the late nineteenth century presented in this article is put in a much wider context in my book *The River Nile in the Age of the British*.

[3] This expression is taken from Robinson and Gallagher's very influential book on Victorian imperialism and the partition of Africa, *Africa and the Victorians. The Official Mind of Imperialism*, 1961. This article quotes from their later edition Robinson and Gallagher (with Alice Denny), *Africa and the Victorians. The Official Mind of Imperialism*, 1981. Robinson and Gallagher claim that the overriding British motive in the region was 'Security of the Empire' and that the British became masters of the Nile not because they wanted to, but because they were forced to act by the European rivals. What compelled the British to occupy the regions south of Egypt was the fear that other European powers might take control over the Upper Nile as a lever to shore the British away from Suez. The occupation of the Upper Nile was thus seen as a pre-emptive measure by and large forced upon an unwilling and defensive British leadership by other European states muddling in the basin. According to this way of reasoning, the importance of Sudan in British imperial strategy was fundamentally shaped by its conceived role as a buffer state *vis-à-vis* other European powers in the defence of British positions in Egypt and not by its intrinsic value in their Nile strategy.

[4] Quote from Robinson and Gallagher, 'The Imperialism of Free Trade', 15. More or less identical descriptions of the 'value' of the Upper Nile and southern Sudan are found in Sanderson, *Education, Religion & Politics in Southern Sudan 1899–1964*, Holt, *A Modern History of the Sudan;* Collins, *Problems in African History;* Collins, *King Leopold, England and the Upper Nile 1899–1909*; Collins, *The Partition of Africa: Illusion or Necessity*; Collins, *Land Beyond the Rivers*; Collins, *Shadows in the Grass, Britain in the Southern Sudan, 1918–1956*; Brown, *Fashoda Reconsidered: The Impact of Domestic Politics on French Policy in Africa 1893–1898*; Louis, *The Robinson and Gallagher Controversy*; Sanderson and Sanderson, Education, *Religion & Politics in Southern Sudan 1899–1964*; Bates, *The Fashoda Incident of 1898*; Lewis, *The Race to Fashoda*; Pakenham, *The Scramble for Africa, 1876–1912*; Louis and Winks, The Robinson and Gallagher Controversy; Cain and Hopkins, *British Imperialism, 1688–2000*; Johnson, *British Imperialism (Histories and Controversies)*; Smith, *British Imperialism, 1750–1970*, Webster, *The Debate on the Rise of the British Empire*.

[5] This expression is taken from one of the most politically influential hydrologists in the 1890s, William Willcocks, see among other books, his two-volume study, 1889.

[6] Robinson and Gallagher, *Africa and the Victorians*, 475.

[7] Robinson and Gallagher, *Africa and the Victorians*, 474–75.

[8] Quoted in Willcocks, *Sixty Years in the East*, 67.

[9] Tignor, *Modernization and British Colonial Rule in Egypt, 1882–1914*, 234.

[10] Crouchley, *The Economic Development of Modern Egypt*, 145.

[11] See, for example, *The Times* for the years 1893 and 1894.
[12] Scott-Moncrieff, 'The Rile', 414–15.
[13] See, for example, Scott-Moncrieff, 'The Rile'; Willcocks, *Egyptian Irrigation*; Willcocks and Craig, *Egyptian Irrigation*.
[14] Crouchley, *The Economic Development of Modern Egypt*, 148.
[15] This was a system of forced labour where poor people in their thousands and tens of thousands were forced to work to clean and repair the irrigation canals in order to hinder them from silting up and to help with the maintenance of the canal banks, etc. This system was abolished during the first few decades of British rule mainly due to an improved water control system. For a description of the system, see, for example, Willcocks, *Egyptian Irrigation*.
[16] Willcocks, *Report on Perennial Irrigation and Flood Protection of Egypt*, 5. This was a government publication.
[17] Quoted in Robinson, 'Imperial Problems in British Politics, 1880–1895', 277.
[18] Ross, 'Irrigation and Agriculture in Egypt', 188.
[19] Willcocks, *Report on the Nile and Proposed Reservoirs*, in CAIRINT, 3/14/232, NRO. This was written in 1893 and circulated among the government officials.
[20] Willcocks, *Report on the Nile and Proposed Reservoirs@.Cairint 3/14/232*, 9.
[21] Willcocks, *Report on the Nile and Proposed Reservoirs@.Cairint 3/14/232*, 5. The direct gain to the state was said to be from sale of reclaimed lands and the increase of the annual revenue derived from them. Indirect gain to the state, but direct gain to the country, resulted from increased value of agricultural produce, the rise in the price of land and in the land rents, increase in custom revenue, etc.
[22] Note upon the proposed modifications of the Aswan Dam Project, by Garstin, 14 Nov. 1894, Inclosure in No. 166, FO 407/126.
[23] Cromer to Earl of Kimberley 15 Nov. 1894, in further correspondence respecting the affairs of Egypt, Jan. to June 1894, FO/407/126.
[24] Garstin, Note on the Public Works Department for the year 1894, 19 Feb. 1895, Inclosure 3 in No 51, FO/407/131.
[25] Garstin, A note, in Willcocks, *Report on Perennial Irrigation and Flood Protection of Egypt*, 53.
[26] Willcocks, *Report on Perennial Irrigation and Flood Protection of Egypt*, 45.
[27] See, for example, Mr Rodd to the Earl of Kimberley 3 Aug. 1894, referring to the protest of the London Society of Antiquarians against the proposed Nile reservoir. In further correspondence respecting the Affairs of Egypt, FO/407/127.
[28] Scott-Moncrieff, 'The Nile', 417.
[29] Memorandum by Sir William Garstin, Inclosure 1 in No. 30, FO/407/144.
[30] Garstin, 1907, Note on the Sudan Irrigation Service, in Inclosure No. 2, *Report of the Finance, Administration and Conditions of the Sudan*, 1906, 53–58, London.
[31] Garstin, *Report on the Soudan, HMSO Parliamentary Accounts and Papers;* Garstin, *Despatch from His Majesty's Agent and Consul-General Cairo Enclosing a Report as to Irrigation Projects on the Upper Nile.*
[32] Willcocks, *Report on Perennial Irrigation and Flood Protection of Egypt*, 12.
[33] Mason-Bey, 'Note sur les nilome'tres et le mesurage des affluents du Nil, notamment du Nil blanc'. See also Linant de Bellefonds, *Mémoires sur les principaux travaux d'utilité publique exécutés en Egypte depuis la plus haute antiquité jusqu'à nos jours.*
[34] Ventre-Bey, Hydrologie du bassin du Nil: Essai sur la prevision des crues du Fleuve'.
[35] Willcocks, *Report on Perennial Irrigation and Flood Protection of Egypt*, 12.
[36] For a description of the role of water-measuring stations in the Sudan for rational water planning in Egypt before 1885 (see Chelu, *De l'Equateur á la Mediterranée*, 2–38).
[37] Chelu, *De l'Equateur á la Mediterranée*, 35.
[38] See, for example, Milner, *England in Egypt*, 197–98.
[39] See Willcocks, *Report on the Nile and Proposed Reservoirs@.Cairint 3/14/232.*

[40] Ross, 'Irrigation and Agriculture in Egypt', 191.
[41] Scott-Moncrieff, 'The Nile', 405.
[42] Garstin, 'Fifty Years of Nile Exploration and Some of Its Results', 135. The leading Nile expert in this century, Hurst, summarised more than a generation later what the water planners in the 1890s understood and that the occupation of the Sudan was 'the great landmark' in recent research on the Nile (see Hurst, 'Progress in the Study of the Hydrology of the Nile in the Last Twenty Years', 440).
[43] Willcocks, *Report on Perennial Irrigation and Flood Protection of Egypt*, Appendix III:11.
[44] Willcocks, *Report on Perennial Irrigation and Flood Protection of Egypt*, Appendix III:11.
[45] Willcocks, *Report on Perennial Irrigation and Flood Protection of Egypt*, Appendix III:10.
[46] Ross, 'Irrigation and Agriculture in Egypt', 189.
[47] See Tvedt, *The River Nile in the Age of the British*, 19–51. See also Lugard, *The Rise of Our East African Empire* and how he uses the hydrological argument in favour of British occupation of the area (vol II: 584).
[48] For a detailed description of the composition and role of sadd, see Rzoska, *The Nile*.
[49] Lombardini, *Essai sur l'Hydrographie du Nil* and Chelu, *De l'Equateur á la Mediterranée*. See also Willcocks, *Report on Perennial Irrigation and Flood Protection of Egypt*, Appendix III, 10–11 and Mason-Bey, 'Note sur les nilomètres et le mesurage des affluents du Nil, notamment du Nil blanc' discussing how removal of the sadd could increase the water flow to Egypt.
[50] Robinson and Gallagher, 'The Imperialism of Free Trade', 15.
[51] Robinson and Gallagher, *Africa and the Victorians*, 372.
[52] Ibid., 25.
[53] Scott-Moncrieff's expression in Scott-Moncrieff, 'The Nile', 410.
[54] Garstin, *Report upon the Basin of the Upper Nile with Proposals for the Improvement of that River*, 166.
[55] Scott-Moncrieff, 'The Nile', 418.
[56] Cromer, 1908, II, 110.
[57] Cromer, 1908, II, 461.
[58] MacGregor, 'The Upper Nile Irrigation Projects', 3, 10 Dec. 1945, *Allan Private Papers* 589/14/48, Sudan Archives, Durham.
[59] In 1890, there were 18 British officials in the Public Works Department compared with four in the Financial Department: The Under-Secretary of State, Inspector-General of Irrigation, four Inspectors of Irrigation, three Assistant Inspectors of Irrigation, one Director of Works and eight engineers (List of Appointments held by English Officials, Inclosure in No 33, Baring to Salisbury, 26 Jan. 1890, FO 407/99).
[60] Cromer, 1908, II, 464.
[61] Ibid.
[62] See Ch. LIV on 'Irrigation' in Cromer, 1908, II, 456–65.
[63] Milner, *England in Egypt*, 310.
[64] Ibid.
[65] Cromer, 1908, II, 465.
[66] Quoted in Zetland, 171.
[67] Cromer to Salisbury, 21 Oct. 1891, FFO 141/284.
[68] Ibid.
[69] Cromer to Salisbury, 14 Nov. 1891, FO 141/283.
[70] Cromer to Rosebery, 27 Dec. 1893, further correspondence respecting the finances of Egypt 1893, FO/407/124. Rosebery answered immediately and supported Cromer's strategy.
[71] Cromer to Granville, 3 April 1884, FO 633/6.
[72] Cromer to Granville, 21 Jan. 1884, FO 633/6.
[73] Cromer to Rosebery, 23 Feb. 1886, FO 633/6.

[74] Extract from a minute by General the Viscount Wolseley, Adjutant-General to the Forces concurred in by H.R.H. the Commander in Chief, and forwarded by the Secretary of State for war, 13 Jan. 1890, FO 141/274/16.
[75] Cromer to Salisbury, 27 Feb. 1898, Annual Report for 1898, FO 407/146.
[76] Report by Mr Garstin on the Province of Dongola, Inclosure in No. 12, further correspondence respecting the affairs of Egypt, April to June 1897, FO/407/143.
[77] Gleichen, 1905, 280. See also the reports written by Garstin, 1899a, 1899b.
[78] Earl of Cromer, Report by his Majesty's Agent and Consul-General on the Finances, Administration and Conditions of Egypt and the Sudan, 1899.
[79] Cromer's 'Letter of introduction', iii, in Garstin, *Report upon the Basin of the Upper Nile with Proposals for the Improvement of that River.*
[80] Peel, *The Binding of the Nile and the New Soudan*, 263.
[81] Earl of Cromer, *Report by His Majesty's Agent and Consul-General on the Finances, Administration and Conditions of Egypt and the Sudan 1903*, 19.
[82] Cromer to Salisbury 13 March 1890, FO 141/276/84.
[83] See correspondence respecting the lawsuit brought against the Egyptian government with regard to the appropriation of money from the general reserve fund to the expenses of the Dongola expedition, Egypt. No. 1 (1897), London, Harrison and sons, in FO 633/66.
[84] Salisbury to Queen Victoria, 25 July 1898, CAB 41/24/42.
[85] The influential book by Langer [1935] 1968, argues that Prompt in his speech *Soudan Nilotique* made 'some rather indiscreet speculations'. If the water in the great lake reservoirs were not let out in time, the summer supply of Egypt could be 'cut in half'. If the reservoirs were thrown open suddenly and the whole flood sent down to Egypt, the 'civilization of the Nile could be drowned out by one disaster' (Langer, *The Diplomacy of Imperialism* (first ed. 1935), 127). He was, therefore, one actor on the Egyptian scene creating British fear of French intentions, Langer suggests. In Bates (1984), the whole of the first chapter is devoted to a description of what is described as the threatening visions which Prompt talked about that fatal afternoon of 20 Jan. 1893. Bates argues further that Prompt had a real influence on French and probably British policy. Collins (1969) makes the following statement: 'Prompt did not confine his remarks (in 1893, my comment), however, simply to Nile hydrology. He suggested that a dam constructed on the Upper Nile could destroy Egypt. He who controlled Fashoda controlled Egypt' (Collins, 1968b, 16). Collins also writes that Fashoda 'had long been considered the hydrological key to the basin of the Upper Nile' and 'the point where the Nile waters could best be controlled' (Ibid., 4). This story of the fears that Prompt created is repeated in Collins (2005) (see *the Encyclopedia of African History*, I, 459), and the story of Victor Prompt's role is also mentioned in general books on the theory of peace and war (Brown, *Theories of War and Peace an International Security Reader*, 200).
[86] One was entitled 'La Vallée du Nil' and was given on 6 Feb. 1891; another lecture was 'Note sur les résérvoirs d'eau dans la Haute Egypte', held on 26 Dec. 1891; then came the herostratic 'Soudan Nilotique' on 20 Jan. 1893 and finally 'Puissance éléctrique des cataracts' on 28 Dec. 1894.
[87] Ibid., 44. The text reads: 'Le doute n'est plus permis, et il faut reconnaître que l'Égypte d'aujourd'hui est menacée dans toutes ses richesses et dans son existence même, par la nature des choses, sans avoir besoin, pour cela, de supposer que les rivaerains au-dessus de Wady-Halfa peuvent utiliser l'eau d'étiage et en priver l'Égypte absolument.'
[88] Ibid., 48.
[89] Ibid., 51.
[90] Ibid., 56–58.
[91] Ibid., 60.
[92] Ibid.
[93] Prompt, 1893, 95.
[94] Ibid., 72.

[95] Prompt, 1893, 101.
[96] Prompt, 1893, 109.
[97] White, *The Expansion of Egypt under Anglo-Egyptian Condominium*. Silva White communicated with Wingate and was familiar with British policies.
[98] Cocheris, *Situation internationale de l'Egypte et du Soudan*.
[99] See, for example, Willcocks, *Report on Perennial Irrigation and Flood Protection of Egypt*, Appendix III: He wrote '... all the small ponds and pools cease to aid the stream, and if they are very extensive, as they are south of Fashoda, they diminish the discharge considerably by their large evaporating areas', and he dismisses Prompt, described as a railway man, and his findings, as the findings of a layman (Willcocks, *Report on Perennial Irrigation and Flood Protection of Egypt*, 17). These speculations were left out *of the official report published the next year, but his were rational and realistic, while* Prompt's were irrational and not very realistic. Also, Magnus repeats the idea that Fashoda' was regarded hydrographically as the key point on the Upper Nile' (Magnus, *Kitchener, Portrait of an Imperialist*, 138).
[100] Baker, *The Albert N'yanza, Great Basin of the Nile and Explorations of the Nile Sources*, I, 44.
[101] Emin Pasha, 'Strombarren des Bahr el-Gebel', 273. See also Chavanne, *Afrika's Strome und Flusse* and Kloden von, *Das Stromsystem des oberen Nil.*
[102] Brown simply misunderstood the nature of the geography and hydrology of the Nile: 'The strategic centre of this region was the ancient fort of Fashoda at the headwaters of the Nile' (see Brown, *Fashoda Reconsidered*, 23).
[103] Lugard, The *Rise of Our East African Empire*, II, 584.
[104] Ibid., 560. Lugard echoed the viewpoints forwarded by Samuel Baker again and again. He had said: 'No wells. No Arabs', and was suggesting that London should occupy the headwaters of the Nile so as to take power in the whole basin (see Baker, 'Egypt's Proper Frontier'; Baker, *Three Articles in The Times;* Baker, Samuel. An Interview with Sir Samuel Baker, *Pall Mall Gazette*, 'Extra' No, 8, 12 March 1884b, in Sudan Pamphlets, 28).
[105] Ibid., 584.
[106] See Tvedt, *The River Nile in the Age of the British* for a more detailed discussion of the importance of the European rivalry in the valley.

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