THE DEVASTATION OF NUBIA.

By SOMERS CLARKE, F.S.A.

However far back we may go in the history of Egypt or in the evidence given us by its monuments we find that the irrigation of the country was an object of careful attention to those in authority.

By basins, canals, etc., the Nile waters have been for centuries so regulated that the country is more productive and better watered than by the mere rise of the river.

So long as we have Egypt in charge, so long is it no more than our duty to do the best we can for regulating the Nile waters. Too high a Nile means an ill nearly as great as too low a Nile. The country is in one case drowned, in the other it is starved.

What the Nile water is to Egypt is well described by Mr. Alfred Milner in his book "England in Egypt," chap. ix. He says :—

"Egypt, as a geographical expression, is two things—the Desert and the Nile. As a habitable country it is only one—the Nile. Every square foot of cultivable land has, at some time or other, been brought down by the river which now flows in the midst. At one season a shallow and sluggish stream of which but little reaches the sea, at another a sea itself, here spreading in a vast lake over the whole face of the country, there pouring along through numerous channels towards the ocean."

The waters cover the land, a rich deposit of mud is found when they retire, and unless the country has been starved or drowned the harvest follows. It is now found that by more careful regulation of the waters and by drainage a second harvest may be got, and it is to regulate the waters and increase the productive power of the land that various schemes have been proposed. However little we may sympathise with the details of the schemes now before the public, we cannot, therefore, reasonably

shut our eyes to the fact that the object to be attained is a worthy one.

It will be well to hurry on at once and consider the scheme now set forth in the Monumental Report published by the Department of Public Works in Egypt, and for which Mr. Willcocks is responsible.[1] I am not competent to criticise the scheme from the point of view of an engineer, but I have sufficient technical knowledge to enable me to pay my tribute to the evidence of untiring energy and unremitting care which the report shows on every page of it.

It is to the frightful devastation which will be caused by the construction of a reservoir as proposed that objection must be taken. The country, the people, everything that makes Lower Nubia itself, and last, but not least in our eyes, all its ancient monuments and the evidences of its history, will be absolutely wiped out. Can it be said that the engineers have arrived at a reasonable solution of the question laid before them when the method they propose to adopt involves the devastation of one part of the country for the not very certain benefit of another?

Several schemes are proposed in the report:—

A. In constructing a reservoir with its base or retaining wall at Gebel Silseleh.

B. In a reservoir with its base on the first cataract a little south of Assouan.

C. A third for a reservoir with its base a little south of the island of Philæ.

D. A fourth for a reservoir with its base some miles south of Philæ, at Kalabshah.

E. A reservoir in the Wady Rayyan.

Although the scheme B is that which comes most prominently before us, it is necessary to mention the others here, as they must needs be referred to.

Taking into consideration the magnitude of the reservoir projects, the Egyptian Irrigation Department asked that a commission composed of three of the most eminent hydraulic engineers in Europe might be appointed for the purpose of considering the several schemes and advising the Egyptian Government as to which of them should be

[1] "Perennial Irrigation and Flood Protection for Egypt." Cairo: National Printing Office. 1894.

adopted. Nothing could be more fair than this. The pity of it is that the whole thing seems confined within a circle of engineers who, in sheer Philistine lightness of heart, and utter disregard of everything but an increase of revenue to Egypt, an increase the amount of which, as stated in the report, is open to grave doubt, are prepared to commit a more desperate act of devastation than the history of any civilised country can record, and to place the safety, the very existence, of Egypt in possible peril.

The subject may be approached from two sides—one that of Egypt, the other that of the cultivated world. Egypt sees a prospective increase of revenue, but at the expense of Nubia. She thinks of to-day. The cultivated world outside has perhaps thought too much of yesterday.

Mr W. E. Garstin, C.M.G., Under Secretary of State for Public Works, in his "Note" on Mr. Willcocks' project, refers to certain objections that may be made to the construction of a storage reservoir in the Nile valley itself. Of these, he makes a summary as follows :—

1. That its construction presents insurmountable engineering difficulties.

2. That from a strategic point of view it would be inadvisable to expose Egypt to the danger of having its summer water supply suddenly cut off by a hostile force seizing the dam.

3. That an earthquake, or even faulty construction, might expose it to an accident which would perhaps produce a catastrophe of appalling magnitude.

It will be sufficient for me here to deal with the utter destruction of objects of antiquity which would be caused by constructing a reservoir with its base either at Philæ or at Kalabshah. The island of Philæ is, without doubt, one of the most interesting spots in the world, and not one of the least beautiful, but I wish particularly to impress upon you that it is but one object of many that must be destroyed. The public has been led to think that the evil stops with the destruction of Philæ. Not at all. Then we are told that the temples can be moved. Mr. Willcocks proposes to rebuild the structure or structures on the adjoining island of Bigeh. Sir Benjamin Baker will screw up the whole affair.

I will not detain you long with a description of the

island of Philæ and its treasures, because it is a place visited by very many people who run over from Assouan.

To begin with the island itself. It is a mass of granite boulders standing up in mid-stream. Quay walls surround the island. These have been built so as to enlarge the surface-area of the island, and in themselves have no little evidence of history. In one place the masonry, by its tool-marks, bears strong evidence of workmanship of the nineteenth dynasty. It seems to be older than any structure we now see on the floor of the island.

In other places may be seen straight joints between two adjoining parts of the quay wall; there are evidences of enlargements. In other parts are projecting quays or bastions, and these show a curious system of construction, for in plan the front of these bastions is not a straight line exactly at right-angles with the sides, but is slightly concave—a piece of an arch laid on its side; this has evidently been done in order to resist the pressure of the stuff filled in to raise the ground level behind the retaining wall. I have said enough to show that the quay walls which surround the island are well worth preserving, and that if Philæ is to be screwed up the very girdle walls must also be raised. When we have ascended to the floor level of the island we find upon it not only the well-known temples and pylons, which appear in the photographs and drawings we often see, but a great many things, equally important but less striking in the eyes of the tourist, We find the ground encumbered by masses of crude brick-walls of houses, some built up against the temple walls, others standing by themselves. I fear that even the museum authorities at Ghizeh look upon these as rubbish, but they are in fact full of history. The most important of these brick remains is the ruin of a great brick wall within which, according to Egyptian custom, the temple was enclosed. The remains of such a wall enclose the group of temples at Karnak, and are very perfect around the temple of Deir el Medineh, but the necessity for such a wall on the Island of Philæ where on one side—the west—is left but little room between the wall and the river, seems not very obvious.

Following a custom very usual in Egyptian brickwork, the courses are not laid horizontally. They undulate,

being laid in large curves rising a little above and descending a little below a line parallel with the horizon. A considerable number of the brick remains are Coptic, and although the Copts certainly wrought terrible damage to the works of ancient Egypt, the buildings they put up are part, not only of the history of Philæ, but of Egypt and of religion, and should not be condemned as rubbish. Towards the north-east part of the island are the remains of a Coptic church, built with stones from Egyptian temples. These all seem to be of a somewhat late period. The church, too, is not of the plan commonly found in Cairo, and which seems to have been accepted as the normal plan of a Coptic Church, namely, that it must have three apses in a row, each with its altar. This church has but one apse. Its plan is in fact that of a small basilica, with an apsidal end to its central nave and flat walls at the ends of its aisles. This type of plan, however, was very common above Philæ. In "Letters from Egypt and Ethiopia," by Lepsius (Bohn, 1853, at p. 219), he gives us a similar plan far up the Nile, in the Wadi Gazal. I know but one instance of it north of Philæ, at El Tum, near Edfou, and perhaps one quite far north, and mentioned in the recent publication of the Egypt Exploration Fund. But the Coptic Church on Philæ is not quite according to the rule of its neighbours, for it has the remains of a stair rising at the end of the south aisle, immediately to the right of the apse. In all other instances I have seen, the stair is at the west end of the aisle. Near the Coptic Church are the remains of a structure which looks like a small triumphal arch of Roman detail. It may be of the time of Diocletian. This little structure seems to me to be one of the most curious in Egypt, for it shows us the extraordinary tenacity with which the Egyptians clung to custom. The detail is, as I have said, Roman, but the method of construction is, as far as he could apply it, the same the Egyptian mason had used in the very earliest buildings we know. Contrary to the custom of most masons, the Egyptian built up the stones first, and cut out the architectural features afterwards. He chipped away at the face of his stone walls until at last he developed the architectural features intended. I am not aware that there is any evidence that the Romans ever did this.

Then there is a further piece of ingenuity, one which was the direct outcome of building where wood was scarce. The arch was well known to the Egyptian constructor, but he rejected it for monumental works. In brickwork, on the other hand, it was largely used, and with much skill he built his brick arches without the use of the great timber frame or centre which we use.

In the present case the arches are of stone, and each stone is worked with a sort of overhang at the back, by which means it cannot slip forward on the sloping side of the arch stone already laid. Thus the need for a wood frame to support the stones until the keystone was placed is done away with. There are many more objects of interest to which I could call attention, little things which do not come within the ken of the hurried visitor, and are not told us in the books of Murray or Bædeker, but they are not the less valuable, and must be lost by the construction of a Philæ reservoir.

It may be well, taking the island of Philæ as a starting point, to give a list, so far as I am able, of the various objects of antiquity which will be submerged by the construction of a dam at the place selected—a line of rocks a little below the island, and where the nature of these rocks lends itself to the construction of such a work, if it be necessary, with greater security than elsewhere. Here, then, is the list:—

1.—Of Philæ we have heard.

2.—The inscriptions on the surrounding islands and rocks.

3.—The remains of the temple on the island of Bigeh.

4.—The remains of the temple at Debôt, with its inclosing walls.

5.—Dimri: here are a very few relics on the surface, but an examination of the place would certainly reveal much more than we now see.

6.—Kertassi, with its large quarries full of inscriptions, and the great girdle wall in masonry surrounding the site of the temple.

7.—Tafeh, with its very perfect little temple and the remains of houses in masonry, some in remarkable preservation.

8.—Kalabshah, a place of royal magnificence. Nowhere

else on the Nile is the impression more fully conveyed of the solemn stateliness with which the approaches to an Egyptian temple were laid out, and then its courtyard is full of graffiti of greatest value. Not being within easy reach of Assouan, the tourist does not visit it, and consequently the engineer's report does not even mention it,

9.—Abu Hor: here is a quay wall, and further investigation would no doubt reveal much.

10.—Dendur: here, standing a little back from the river, but not sufficiently raised to escape the devastating flood, is a large terrace of masonry, standing in front of the temple. Behind stands the temple itself in very good preservation.

11.—Koshtemneh. Here is a great fort of crude brick, belonging to the middle empire. The remains of many buildings surround it buried in the sand.

12.—Dakkeh (*Pselchis*). A temple with many parts still well-preserved. One year's flood would bring most of it to the ground as it does not stand on rock.

13.—Kobban.—A magnificent specimen of a rectangular fort, far more perfect than that at Koshtemneh. Temple ruins adjoin it.

14.—Korti. The site of an ancient city, which should be carefully examined.

15.—Maharagah, called also Offedinah (*Hierascaminos*), a late structure of most unique plan.

16.—The ruins of a Coptic church, a little north of Sebua.

If the reservoir lifting the water to the level proposed be made just below the island of Philæ, it will submerge to a greater or less degree, and will certainly ensure the ultimate destruction of everything named in this list. The reservoir would be full 116 miles in length.

If the reservoir be made at Kalabshah, south of Philæ, the list of antiquities to be named must begin with the temple of Kalabshah, No. 8 in the list, but we must add several rock tombs which flank the fertile plains of Derr, and finally the plain of Aniba, full of unexplored sites.

From the foregoing statement it is evident that if we approach the matter from the archæological side only, the devastation will be tremendous; but in addition to this I must mention in passing that from 25,000 to 30,000

peasants will be displaced, their homes and native places utterly destroyed. I might say a great deal on the cruelty of this, done as it would be under the ægis of England, a country which has hitherto professed, and not without truth, to have the interests of the peasantry at heart.

This concludes the list, and I will now take a few of the places in detail.

On the walls there hang some plans of temples, &c., that would suffer by the devastation. Philæ has already been described.

Kalabshah is certainly one of the most magnificent ruins on the Nile. The great girdle walls with which it is surrounded are of particular interest, and for the following reasons:—In Egypt, from Assouan downward, where the flow of the Nile valley is often of considerable width, the temples, as also the towns, have been enclosed by great walls of crude brick. Such a wall has been already referred to as still existing in part at Philæ. When we pass the first cataract the character of the valley changes, and becomes generally more narrow. The cultivable ground is a small strip lying on the border of the river and at the foot of the arid sandstone hills and cliffs which form the sides of the Nile valley. It may have been because stone was near at hand, or it may have been because the alluvial soil was thought too precious to be made into bricks; but in fact, when we pass into Nubia we find the girdle walls generally built of masonry, and the finest specimens that remain to us are those at Kalabshah.

In the photograph taken from the north-east the girdle wall can be seen, crowned with an overhanging cornice, and standing at a lower level than the walls of the temple which rise above it.

Another point to be especially observed at Kalabshah is the illustration it gives us of the way in which the Egyptian architect laid stress on the approach to the temple.

The faithful were not permitted to turn a corner and suddenly find themselves confronted by the building. They must be led up to it and duly impressed. The immense avenues of sphinxes from Luxor to Karnak, making the most of an approach on the level, or the still more dignified approach to the terrace temple known as the Deir

el Bachri are superb examples of effect. But these were at the great centre of Egypt—Thebes.

At Kalabshah we are away in the country. None the less, there was no abatement in the efforts made by a grand approach to produce an impression.

As my plan shows, arriving by the great highway, the Nile, we find our boat drawn up at the base of a stately quay-wall, some 18 or 20 ft. high. This is pierced by two great flights of steps, some 20 ft. wide. Mounting these, we find ourselves on a large terrace, extending its length beside the river, and going back at right-angles with it some 200 ft. At this distance, back from the river, rises another terrace, some 8 or 10 ft. high, and reared upon this is the huge pylon, wider than the west front of Westminster Abbey.

It should be said that the pylon has not its longer axis parallel with the front of the hypostyle hall, as shown on my rough plan. The longer axis is slightly deflected.

At a level, intermediate between that of the lower and upper terrace, there is a long terrace, 20 ft. wide and 158 ft. long, which runs out at right angles, reaches nearly to the river, and follows approximately the axial line of the temple. This terrace ends towards the river in a square platform, whilst the temple is reached from it by a flight of broad low steps.

These terraces are now very perfect, and with two fine sycamores spreading their great green heads to the sky, they present an appearance quite as beautiful as, and I think more stately than, anything at Philæ.

Passing through the pylon we find the temple itself built on a most majestic scale. The photograph shows the front of the hypostyle hall.

My plan shows the great girdle walls within which it is enclosed, solid structures, 6 ft. thick, starting from the back of the pylon. Outside these comes another wall, which starts right and left from the ends of the pylon, and then encloses a considerable space outside the 6 ft. walls last described. The outer wall is not less than 12 ft. thick, and in some places more. It is formed of two outside skins of masonry, the interspace being filled with stone chipping, and perhaps also with earth, but this has all been removed, probably for purposes of agriculture.

To the north there is yet another wall, with outer and inner skins of masonry, and although many stones are displaced, the whole thing is more complete than can be found elsewhere.

No 11 in my list, to be destroyed, Koshtemneh, is worthy of especial notice, as it is the remains of a great brick fortress, which, subjected to the action of water, would rapidly be returned to the Nile earth out of which it is made. From the first cataract southward there are several great fortresses, all belonging certainly to a time as far back as the eighteenth dynasty, if not to an earlier period.

At Kertassi, No. 6 in my list, is a great wall of masonry which surrounds the site of a temple, the temple gone within the last few years. Von Prokesch, in his map of the Nile between the first and second cataracts, and made in 1827, shows that part was then standing. This great wall was clearly arranged for purposes of defence, Next we find Koshtemneh, then Kôbban, then a great fort at Halfa, another commanding the second cataract at Matouka, and the well-known, but now inaccessible, fort at Semneh, some thirty miles south of the second cataract.

To return to Koshtemneh it was a rectangle of 304 ft. by 252 ft., with walls 12 ft. thick. In one angle on a brick platform are the remains of a temple. Without excavation it would be impossible to assign a date to these remains. I fancy they belong to the nineteenth dynasty. Outside the enclosure can be traced a quantity of buildings in brickwork of ancient Egypt.

The temple at Dakkeh is fairly well known to tourists on the upper Nile, but the great fortress of Kôbban, is not visited.

Kôbban (No. 13 in the list) is a majestic place, a brick-built fortress, standing opposite Dakkeh. Its walls form a rectangle, 354 ft. by 240. ft. They are a solid mass 18 ft. thick, and still stand in parts some 25 ft. above the ground. In common with all the fortified places I have seen on the Nile—whether ancient Egyptian, Ptolemaic, Roman, Coptic, or Arab—there are gates in the walls which lie at right-angles with the Nile. In this case the gateways are flanked with towers, which do not project outward from the wall face, but stand out into the interior,

leaving a narrow passageway 9 ft. wide and 31 ft. long. The most curious feature is a covered way which extends from the south-west corner of the fortress towards the river. This is lined and roofed with big stones, and was covered with a thick skin of crude brick. Within the fortress lie the remains of a temple. Outside the walls are sundry inscribed stones and remains of temples going back to the eighteenth and nineteenth dynasties.

I will not detain you with further descriptions. Each place from Philæ, which I have called No. 1, to the last place, No. 15, the ruined Coptic church, has its interest. I will only say that the reservoir, if made at Philæ, would inevitably reduce all the places described to ruin, and would extend its waters to the town of Korosko, where the caravan road to Abu Hamed and Khartum takes its start. The rock temples of Beit el Wali, Gerf Husen and Sebua are not included in the list because they are at a level above that of the proposed reservoir when full.

If the reservoir be made with the dam at Kalabshah, the devastation is but an evil moved a little further south. The place selected for the dam lies north of the Temple of Kalabshah. This splendid structure must consequently perish, with all the buildings south of it to Korosko, and whilst we take away seven items from the list at one end we must add at the other, not only several rock-tombs near Derr of great interest, but more especially the submerging of the plain of Aniba. This is certainly one of the most interesting places in the valley. There stand up in various degrees of perfection pyramidal brick mastabas, things that lower down the river have almost, if not entirely, disappeared. The most perfect of these stands on a stone platform projecting about 6 ft. all round. The mastaba itself is a square of 22 ft. on each side. After rising vertically 4 ft. the pyramidal form begins rising now about 6 ft., but it must, when complete, have been about 12 ft. high, 16 ft. in all. Within is a rectangular chamber covered with a tunnel vault, Painting can still be found on the inside walls of these mastabas—painting that evidently belongs to a very early period. There are great numbers of stone rings and burial mounds, in addition to the sepulchres, of a markedly Egyptian type. This district needs an exhaustive survey and examination.

As the subject of my paper is "The Devastation of Nubia," I cannot leave it without some reference to the proposed reservoirs, in addition to what has already been said.

The engineers have been called upon to scheme a reservoir. They have set to work with a will, and have propounded the most tremendous scheme that has ever been projected.

They evidently think that the monster they have projected needs justification. This is proved by the following extract from the report made upon the subject to the Egyptian Government, On page 7 it is said: Taking into consideration the magnitude of the reservoir project, we have asked that a commission, composed of three of the most eminent hydraulic engineers in Europe, be appointed for the purpose of considering the several schemes, and advising the Egyptian Government as to which of them should be adopted. We have asked for this commission, not from any want of confidence in ourselves or in our staff, but considering the gigantic nature of the work and the interests involved, we have preferred subordinating our judgment to that of men justly celebrated for their mastery of all subjects connected with hydraulic engineering.

I will quote the report again to show what is said in it about the destruction of Philæ, p. 25.

"Unfortunately, with every advantage in its favour as to volume of water stored, soundness of foundation, and economy of construction, this site labours under the objection (which I fear may be found insuperable) of having Philæ Temple on its upstream side. No dam could be constructed on the cataract without inundating a great portion of this Temple for several months every year. I agree with Colonel Ross that no project which had this effect should be admitted unless it were impossible to find a reservoir site elsewhere. We cannot say there are no other possible sights. There are Kalabshah, Philæ,[1] and Gebel Silsila which are all available, and we cannot therefore claim that if a dam has to be built, it must

[1] Philæ, according to the terminology of the report, means a dam south of the island, as distinguished from that considered best and which is called Assuan, being the reservoir which we commonly call Philæ.

necessarily be built at the head of the first cataract and drown the temple of Philæ."

The above two extracts are from the introduction by the engineer's report and are written by Mr. Garstin, C.M.G., for Public Works.

Mr. Garstin goes on to say:—

"If lifting the temple stone by stone, as suggested by Mr. Willcocks, would cause an injury or alteration of any kind to it, I should recommend the abandonment of the Assûan dam altogether. Any work which caused either partial damage to, or the flooding of this beautiful temple would be rightly considered by the whole civilised world as an act of barbarism."

Mr. Garstin says what he really feels.

I will make one more extract, which will be from Mr. Willcocks' report. It is very important as showing either the wilful or innocent ignorance of this excellent engineer. He says:—

"The existence of the two temples of Philæ and Abu-Simbel has also been taken account of in all questions connected with reservoirs, and I may state here that in deference to public opinion, which is against the sacrifice of the site of the former temple, I have prepared my designs for reservoirs so as to leave the Philæ temple entirely free from any possibility of inundation. Abu-Simbel is far out of the reach of any reservoir."

So much for Mr. Willcocks. The majestic structures to which I have called your attention this afternoon, not being known to Cook's tourists generally, are, it would seem, not worthy of regard.

Mr. Hamilton Lang, whose acquaintance with the subject, holding the important position he does in Egypt, is beyond question, has already called attention in the *Times*[2] to the unnecessary size of the proposed reservoir.

There is yet another feature of the scheme which I have just mentioned before. One of the greatest importance to the people. England has not only posed as a benefactor to the peasantry, but there is very little doubt that she has assisted the Egyptian people against the oppression of the pashas, landowners, and members of the Khedivial family.

[2] "*Times*," June 19 and July 10, 1894.

But what through her engineers does she now propose to do? To turn out between 25,000 and 30,000 people from their homes and to absolutely efface the very sites on which they were bred and born. Nothing but rocks and Nile mud would be left for a distance of about 100 miles.

This, which is in many ways a more serious matter than destroying history and antiquities, is treated in the most light and airy way in the report. Where the poor people are to go is not even stated, nor the method of their removal.

I cannot find anything in the reports beyond the statement of certain sums for compensation. For being driven out by the Philæ reservoir, £E350,000 compensation. For being driven out by the Kalabshah reservoir £E432,000, if the highest level of water be maintained, £E240,000 if a lower level be decided upon.

This is not the place to say much on this matter; it is not a question of archæology, but the work would involve the entire displacement of a considerable tribe, with their own language, customs, &c., and we have also to remember that the botany, the ethnology, in fact everything that gives a country its own character, except the bare bones of the geology, will be effaced, and surely no greater cruelty to a people has been shown since the terrible days of the corvée.

Finally, I will give you the replies made to me by a couple of eminent engineers more or less mixed up with this business, when I called attention to the real cruelty to the people. I asked "Where are the poor folk to go?" By both men I was informed, "Oh, they will go higher up!" "How can that be, the valley from Korosko to Halfa cannot suddenly support more than double its present population?" "No, no, they will go higher up the sides of the valley. If their village is now just above high Nile, then they will have to live 70 ft. or 80 ft. higher up the side above high reservoir level; the Nile will soon deposit earth." Those who know that the people live not a little on their date palms, and that a date palm takes eight years after it is planted to bear fruit, will understand the amount of thought that has been spent on the people of Nubia.

The deposit of Nile earth is a very slow process, and on the steep side of a bare, stony valley no deposit worth talking of will be made for years.

It is especially from the point of view of the poor that the thoughtless cruelty proposed should be combatted.

A commission to consider all sides of the subject, not composed merely of three engineers (who, if report speaks true, did not agree very well), but of men with much wider knowledge, is essential, or the credit of England will be grievously imperilled.