

took four of them off as prisoners, but hardly had they started on their road when the rest of the villagers repented and called them back to receive the required guarantee.

Since then they have been on their best behaviour, and we are now on very good terms, especially as I have cured two or three of them of ophthalmia. This has raised my reputation as a hakim to an unpleasant pitch, and I am constantly besieged by applicants, even from the neighbouring villages, for medicines to cure all kinds of diseases—from blindness to palsy. Now, however, as on former travels, I find that the distribution of a little medicine facilitates dealings with the people, though I fear that it seldom produces anything like real gratitude.

Two of our cairns have been knocked down, but I immediately sent soldiers to make the men in whose land they were built reconstruct them, and I hope that before long these ignorant savages will understand that we have no intention of injuring them, and will not offer us these obstructions, which arise simply from their ignorance and superstition. Kindness from a person whom they know to have the power of compelling them, will be appreciated: kindness from one whose strength they either are ignorant of or doubt is looked upon as cowardice, and as such taken advantage of.

Whenever we have had occasion to visit the villages and set up poles, &c., on the houses, there has been no difficulty whatever, and in my intercourse with the people I have had no trouble—other than that arising from their douseness of comprehension—in obtaining what information I required.

I am glad to say that the cold and wet, though much interfering with our work, has not at all affected the health of any of the party.

CHARLES F. TYRWHITT DRAKE, F.R.G.S.

RECENT DISCOVERIES AT JERUSALEM.

BY CAPTAIN WILSON.

MR. SCHICK, in a letter dated Jerusalem, December 15th, 1871, gives the following interesting details of an aqueduct recently discovered on the hill commonly known as Bezetha. The position of the aqueduct is shown on the accompanying lithograph, and on reference to this it will be seen that it runs from a point near the Damascus Gate to the souterrain at the Convent of the Sisters of Zion, and so connects with the rock-hewn passage explored by Captain Warren, R.E. (see his Letters, No. XIV., and "Recovery of Jerusalem," p. 198). According to Mr. Schick, the aqueduct is from two and a half to three feet wide, and so high that a man can walk through it easily, the height rising, occasionally, to twelve feet and more; it is partly hewn out of the rock, and partly of masonry, the channel being covered by a vault in which numerous openings, now closed by rubbish, were noticed. The aqueduct

crossed the deep pit east of the Damascus Gate, immediately without the city wall, and part of it is visible in the scarped face of the rock on its northern side, near the entrance to the great cavern, or "cotton grotto;" it is therefore older than this pit. In building the present city wall, which stands on old foundations, the upper portion of the aqueduct was destroyed.

Mr. Schick's discovery is of great importance, and it is much to be regretted that he was not able to follow it up, and trace the source from which the aqueduct derived its supply of water; the Palestine Fund has, however, taken the matter in hand, and we may hope during the course of the year to obtain full information. Meanwhile the following suggestions are offered as to the age of the aqueduct and the object for which it was built.

The deep pit east of the Damascus Gate, mentioned above, is hewn out of the solid rock, and now forms part of the ditch which protects the north wall of the city; it is connected with the great caverns or quarries from which it is generally supposed a large proportion of the stone used by Herod in rebuilding the Temple was taken, and is in all probability the original entrance to them. When we remember the terraced limestone formation of Jerusalem, and the gentle even slope at which the strata dip towards the Temple area, a glance at the map shows at once that great facilities existed for running down immense blocks of stone from the mouth of the quarries near the Damascus Gate to their position in the Temple wall. It has indeed been suggested that the mouth of the quarries was at their southern end, near the Austrian Consulate, and if this be the case, the present northern entrance may possibly be of later date than the reign of Herod, but no such opening has yet been discovered. At present, therefore, I think we may assume that the pit east of the Damascus Gate was made during the reign of Herod, and that the aqueduct, which was partly destroyed by the excavation, was of still older date, possibly the work of Hezekiah, who did so much for the improvement of the water supply of Jerusalem.

Following the course of the aqueduct southwards, we find that it runs into the souterrain at the Convent of the Sisters of Zion, and as there is a peculiarity in the formation of this souterrain which does not appear to have been previously noticed, it will be necessary to say a few words with respect to it.

In one of Captain Warren's letters (No. XVI. See also "Recovery of Jerusalem," p. 224) he points out the probable existence of a ditch in the Haram area, a little north of the platform on which the Dome of the Rock stands. The sides of this ditch, which are indicated on the Ordnance Survey plan of the Haram (marked c d on lithograph), are not, as might have been expected, parallel to the northern and southern walls of the enclosure, but perpendicular to a line representing the general direction of the ridge; the reason apparently being that the quantity of rock to be excavated in forming a ditch would be less on

this line than on any other. Turning again to the souterrain, we find that the cuttings in the rock at the north and south ends (F and E on plan) are also perpendicular to the general direction of the hill and parallel to the sides of the ditch in the Haram area. (See woodcut.) This leads me to believe that the souterrain was originally a ditch, possibly that separating the Tower of Antonia from Bezetha, and that in making it the aqueduct was cut through a second time. At a later period it may have been converted into the existing twin pools of the souterrain for the purpose of collecting the rainfall on Bezetha, which would be partly conveyed to it by that portion of the aqueduct left untouched.

South of the souterrain, as we learn from a letter of Dr. Chaplin's (*Quarterly Statement*, No. VII.), the aqueduct runs a few yards beyond the point reached by Captain Warren, and then, turning sharply to the east, terminates abruptly on a massive stone wall similar in character to that at the Wailing Place, and in the same line with it. This seems to show that the aqueduct was again destroyed when the wall was built, apparently from the character of the masonry during the reign of Herod. Whether the aqueduct ran down the crest of the hill, or kept along its side, must at present be a matter of conjecture; there seems every reason to believe that the remaining portion is still in existence, and its discovery by some future explorer will throw considerable light on the topography of the city. The discovery of a wall, similar to that at the Wailing Place, at this point is also of interest, but unfortunately the information relating to it, and its position with reference to the rock, is not as full as we could wish. A plan and section of the souterrain, and the southern portion of the aqueduct as far as the Haram wall, which has been prepared by Mr. Schick, is attached.

We may now endeavour to trace the aqueduct to its source. In my notes to the Ordnance Survey of Jerusalem, written in 1865, the following passage relating to the supply of water to the city, from the north, occurs:—"The pool to the left of the north road, a little beyond the Tombs of the Kings, is now nearly filled with soil washed down by the winter rains; but at the upper end there is still a shallow excavation which holds water after heavy rain, and at the lower end the scarped rock is visible; this must have been the largest pool in the neighbourhood of the city, and is admirably situated for collecting the surface drainage of the upper branches of the Kedron valley. It was probably connected with the Pool of Bethesda by an aqueduct or subterranean conduit, as this latter pool is so large that it must have been filled by some such means. The difficulty is to find this conduit. The most natural line for it would be to follow the course of the Kedron valley and enter near St. Stephen's Gate, filling at the same time the Birket Sitti Maryam; but against this is the constant tradition of water having been brought in near the centre of the north wall of the city, the reputed springs at the Convent of the Sisters of Zion and Church of the Flagellation, and the Arab name of a street in that quarter,

Hosh Bakir or Hosh Bezbezi (the running or bubbling of water), such as would be caused by the bursting forth of a spring; none such exists, but the name is suggestive. If there is any truth in these traditions, the water must have been brought down by a tunnel similar to that at Siloam, and cut in the soft stratum of 'malaki,' which would here lie at about the right slope and distance from the surface. Perhaps this may have been the ancient conduit lost or destroyed at some troubled period, and afterwards replaced by a later one following the course of the Kedron valley. In this case the cutting in the rock at the Convent of the Sisters of Zion would be a portion of the former, and the conduit at the Birket Sitti Maryam a portion of the latter. The traditional pool near the Church of St. Anne would of course be connected with such a system of water supply."

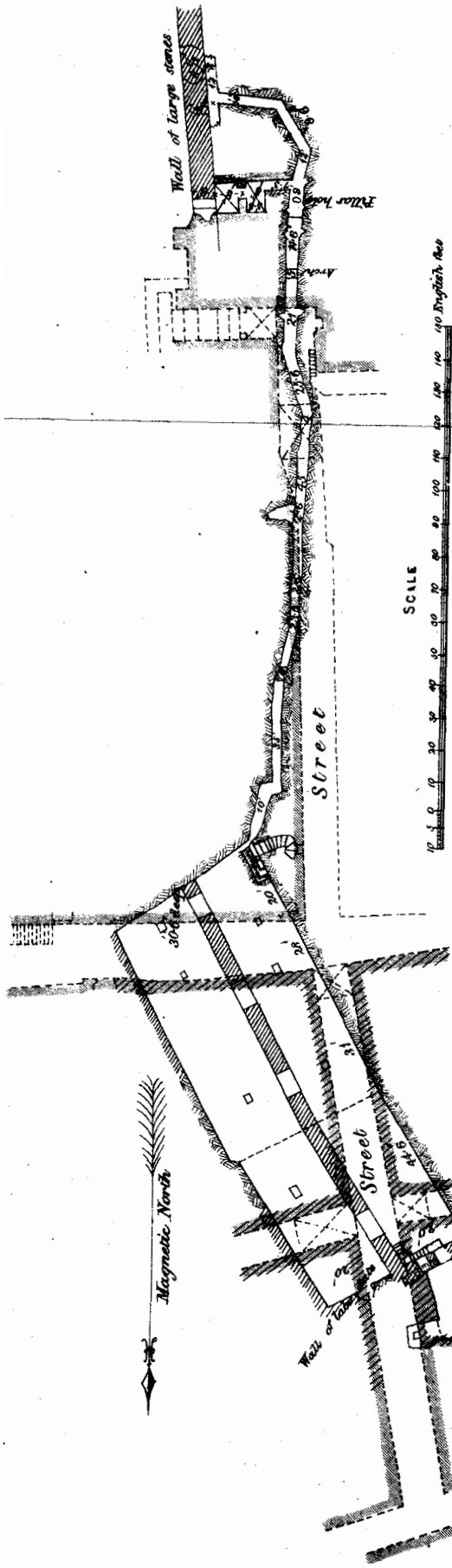
I am still inclined to believe that the aqueduct derived its supply of water from the pool north of the Tombs of the Kings, or from some point near it,* and would identify this pool with the "upper pool" of 2 Kings xviii. 17, and of Isaiah vii. 3 and xxxvi. 2, and also with the upper water-course (accurately, source of the waters) of Gihon stopped by Hezekiah when he brought its waters "*straight down to the west side of the city of David.*" The aqueduct would in this case be the conduit of the upper pool in the highway of the fuller's field, by which Rabshakch stood when he addressed the Jews on the walls of the city.

The frequent identification of Siloam with Lower Gihon, the scene of Solomon's anointment as king, is noticed in the "Dictionary of the Bible," art. Gihon, and the position of the source, mentioned above, from which the aqueduct probably derived its supply, accords well with the slight indications we have of the site of Upper Gihon. Assuming also that the view taken by several writers, that the city of David was on the eastern hill, is correct, the aqueduct is exactly in the position we might expect to find it from the verse quoted above. The verse has always been a difficult one to understand in connection with the topography of Jerusalem, but assuming that the city of David was on the eastern hill, it is at once explained by the recent discovery.†

I do not know of any other source from which the aqueduct could have derived its supply of water, except perhaps the sealed fountain near Solomon's Pools. The high-level aqueduct from this spring has never been traced into the city; the last place at which it is seen is on the so-called Plain of Rephaim, and its level is sufficiently high to deliver water at the Jaffa Gate. The level of the new aqueduct is lower than this,






* In the Wady Biyár, near Solomon's Pools, there is a long tunnel cut in the rock for the purpose of collecting water, and there are others of a similar nature in the country; they are apparently of great age, and the aqueduct recently discovered may have derived its water supply in a similar manner.

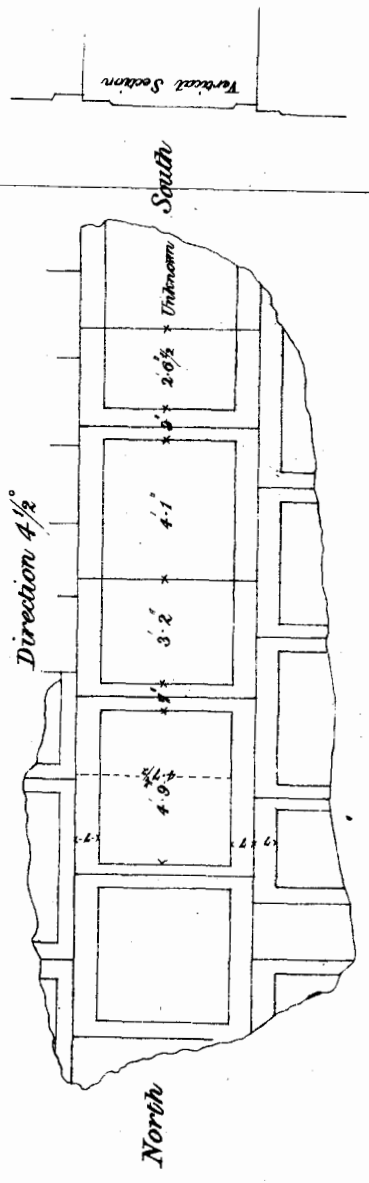
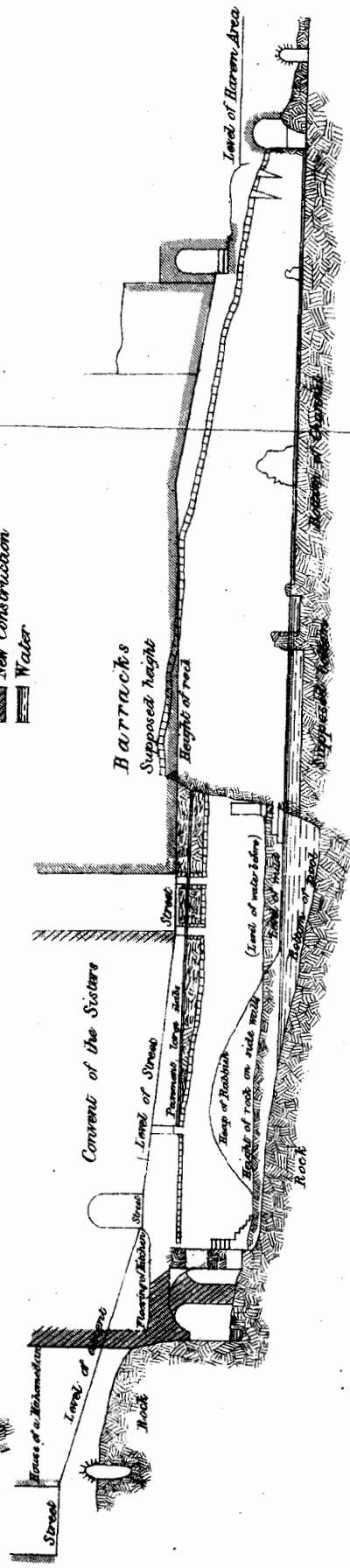
† In the article on the Topography of Jerusalem in the "Dictionary of the Bible," this northerly position is given to Gihon, and on one of the maps the great central valley which separates the eastern from the western hill is called the Valley of Gihon.



SCALE
 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 English Feet

EXPLANATION.

-  Rock
-  Ancient Masonry
-  Modern, D.P.
-  New Construction
-  Water



apparently about twenty feet, and it is difficult to believe that the water would have been brought into the city at a level so much lower than necessary, especially as it might, after supplying the upper town, have been taken straight down to the Temple over the causeway. It may possibly be a branch of the high-level aqueduct, brought round the head of the great central valley to supply Bezetha with water; but this hardly seems likely, as it would then be necessary to make the date of the excavation east of the Damascus Gate and the cutting at the souterrain later than the reign of Herod.

Mr. Schick states, in addition, that he has made a careful plan of the great quarries, or "Cotton Grotto," and of some adjacent ones which have recently been discovered. The latter extend beyond the city to the north, and the present wall, which bends inwards at this point, runs over them. Mr. Schick is of opinion that the original wall ran in a straight line from A to B (see plan), and that the present wall is modern. It may be noticed that if there was an opening to the quarries on this side, near I, for instance, stones could be easily run down the eastern side of the hill for the construction of the east wall.

Mr. Schick also mentions that he has traced out the numerous aqueducts in Wádies Aroob and Biyár, and laid down their positions on a map. He believes that the aqueduct which conveyed water from Wády Aroob to Jerusalem, and which proves to be nearly sixty miles long, was made by Herod, and that the high-level aqueduct from the sealed fountain is the work of Solomon.

Mr. Schick is at present engaged in constructing a model which will show the natural features of the ground before they were covered with rubbish; and as, during his long residence in Jerusalem, he has had peculiar facilities for obtaining information, the model promises to be extremely interesting.

C. W. W.

PALESTINE GEOGRAPHY IN THE SEVENTEENTH CENTURY.*

BY JOHN EGLINGTON BAILEY.

No one at all familiar with the work whose title is at the head of this paper would hesitate to give it a prominent place among the literature of the Holy Land, which it has been projected to collect in connection with the Exploration Fund. Lamb, who knew the work well, would assuredly make it one of the "front teeth" of the collection; but not so much on account of its practical utility—such books, according to Elia's canon, were no books—as on account of its quaintness and *wit*. For, though professedly a mere geographical description of Palestine, the

* "A Pisgah Sight of Palestine and the Confines thereof; with the History of the Old and New Testament acted thereon. By Thomas Fuller, B.D. London: Printed by M. F. for John Williams, &c. 1650."