Transcription.	Arabic.
Khurbet Inseirât	خربة انسيرات
Shejarat el Maghazâ	شجرة المغزا ؟
Ed Dmeita	الد ميتة
	الد ماثة ؟
Khurbet Abu el 'Ajîn	خربة ابو العجين

SECOND AQUEDUCT TO THE POOL OF SILOAM.

During the stay here of Professor Hayter Lewis, he suggested that I should, at a proper time and opportunity, make some excavations at Siloah on purpose to find traces of the old or first water conduit from the Virgin's Fountain, as I suggested in a former paper, published in *Quarterly Statement*, April, 1886, page 88. This work I completed last month, and it is now my privilege to report upon it. I have prepared the accompanying drawings, based on the printed plan he gave me, and on which he marked in red the exact sites where the excavations should be made.

The first shaft *A* was made in the very line, but about 40 feet south of the selected point, as the ground was there about 6 feet lower and waste, whereas at the selected spot cauliflower were planted, and the proprietor was not willing to allow excavations. Of course there was no great difference in regard of the expected result.

As the surface of the ground, where the shaft was made, is marked on the Ordnance Map, 2,099, and the bottom of Virgin's Well 2,087 feet, I hoped at the depth of about 12 to 15 feet to find the conduit. We found the following :—

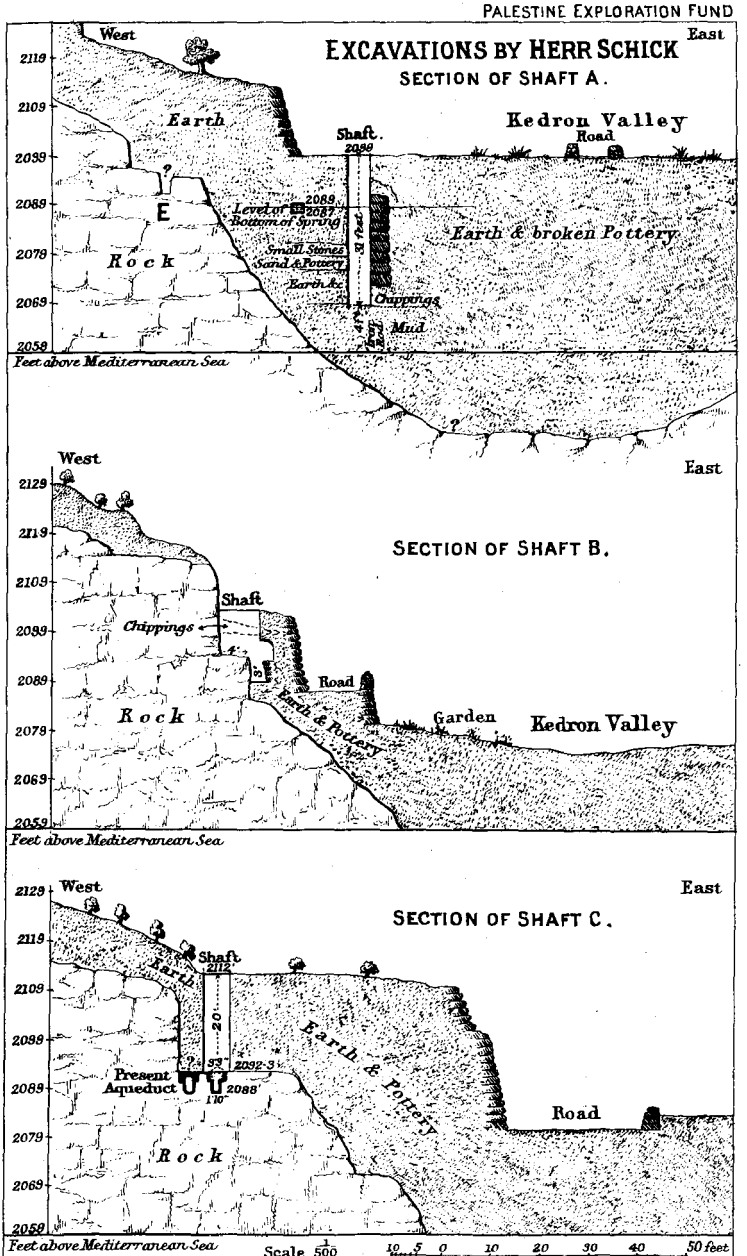
At 9 feet deep, met on the east side a wall which enabled us to go down deep, without wooden frames ; but the hewn stones (only two layers) soon ended, and beneath them were unhewn rubble stones. I wished to know the depth at which the rock lies, and to ascertain its slope, so as to find the real valley.

At 14 feet deep the earth ended and a layer of small stones came and after it a thick layer of sand, with many small pieces of pottery, as if it had once been the watercourse of the valley. At about 20 feet, or 2,079 above the sea, when this layer ended, there was no rock, but stones and

earth; but the greater part was broken pottery. The wall now ended and proved to stand on a layer of chippings, 2½ feet thick; then we struck a bottom of very hard concrete a few inches thick, consisting of lime and small stone chippings, with pounded bricks in it. Under it there was dry mud, like the deposit in a well or a pool. Working down a few feet, the work became dangerous, and required frames, so I drove in an iron rod 4 feet long, but it struck no rock. Thus at a height of 2,064 feet above the sea there is no rock. Has the valley really been so deep here, or have I come into an old pool? I cannot tell. Then the shaft was filled up as high as the wall, and a short gallery made over it, to learn its thickness; it proved to be only 2 feet thick. I imagine now the rock-hewn channel will be found about 40 feet or more to the west, as I have shown at *E* (?).

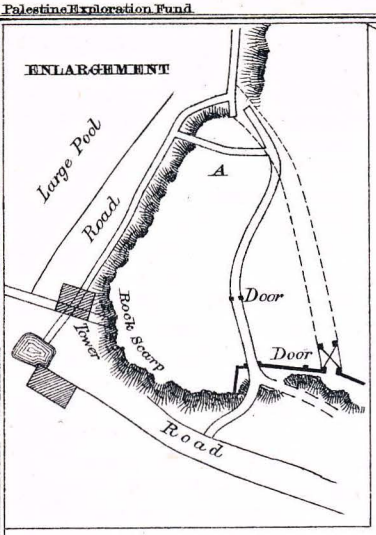
The second shaft I made at the exact spot he marked at *B*. (See printed plan.) There is, as section of shaft *B* will show, between the high scarp of the rock and the road, only made ground, sustained by a rubble wall, 15 feet wide, so the shaft was made at the side of the scarp. After 3 feet we struck a layer of chippings, which ran like water, but as it proved only 2 feet thick, we were able to continue the work. At 10 feet we struck the rock, a smooth surface, shelving a little to east, but ending after 4 feet and going perpendicularly down again; in front of it earth; in clearing some feet deep it was observed that there was a wall of rubble, forming a conduit or channel at the desired height. No cementing was observed, except on the top of the wall, which slopes eastwards. As I feared going down much deeper, the iron rod was driven down, and it came on hard ground—whether a large stone, or the rock, I cannot say.

Here we have, therefore, the ancient aqueduct, but in a damaged condition; the level answers pretty well—and as it is somewhat deeper than necessary, I suppose that the water always stood there, so that people might fetch it; or poured over eastwards to the gardens below. Having found the aqueduct, but in such a condition that some might doubt its existence, I wished to find it further north, and to continue the work, although the money at my disposal was at an end; yet, as the work had commenced, I thought it better to go on, and selected a place for a third shaft (see section of shaft marked *C*). As the famous Siloah conduit is so very narrow (only 1½ feet) in its middle course, it could not have been tunnelled by men. They would have been obliged to lie down, and then they could not have cut through the hard rock. They must have done it in some other way—either making it so high that a man could stand upright and then filling it up again to its present height, which no man of common sense would do, or, as I suggest, they worked from above, making an open channel, which they afterwards covered with flat stones, so exactly that hardly a joint is visible. And even if visible at the beginning, the sediment from the water has in course of time so filled the joints up that the roof appears like rock. The conduit is only cut from above where the height is not too great; and this is the case along the eastern brow of the Ophel hill. In places where they have not cut down from above, the conduit is so high that a man kneeling could work in it. To strike the


EXCAVATIONS BY HERR SCHICK
SECTION OF SHAFT A.
West
East
Earth
Kedron Valley
Road
Shaft.
2099
Rock
Level of Bottom of Spring
2089
2087
Small Stones
Sand & Pottery
Earth &c.
Chippings
Mud
Earth & broken Pottery
2119
2109
2099
2089
2079
2069
2059
Feet above Mediterranean Sea
SECTION OF SHAFT B.
West
East
Shaft
Chippings
Road
Rock
Earth & Pottery
Garden
Kedron Valley
2129
2119
2109
2099
2089
2079
2069
2059
Feet above Mediterranean Sea
SECTION OF SHAFT C.
West
East
Shaft
2112
Earth
Rock
Present Aqueduct
2088
2092-3
Earth & Pottery
Road
2129
2119
2109
2099
2089
2079
2069
2059
Feet above Mediterranean Sea
Scale 1/500
10 5 0 10 20 30 40 50 feet
G.A., del.
E. Weller.

PLAN OF THE AQUEDUCTS AND CONNECTIONS RECENTLY DISCOVERED AND SUPPOSED CONTINUATION OF COURSE

Palestine Exploration Fund



2027 Water

'Ain Umm ed Deraj
(The Virgin's Well)

E

Lowest Point Height 18"

A First Shaft

Point of Junction

False Cut

False Cut

Lowest Point Height 19"

Second Shaft

Wady Sitti Maryam

Third Shaft

C

First Shaft 80' high

C

Inscription

F

Birket Silwân
Pool of Siloam

Rock-hewn Chambers

Second Shaft

B

Village of Siloam

A

B

G Schick's Shaft

Tank

a

Mill (Ra)

Birket el Hamra

Tree of Isaiah

B

Rock-cut Channel covered with S. Slabs

Rock-hewn Steps

Detail from O.S. Plan of Jerusalem G.A.

Stanford's Geogr. Establ.

SCALE

100 Feet 0 100 200 300 400 500

celebrated conduit I measured 60 feet westwards from the road, just opposite the road, going across the valley to the village (see printed plan). This 60 feet I took from the plan of the Ordnance Survey, hoping to strike the aqueduct, although I knew the shaft must be some depth. There was only earth, with a few small stones. At 20 feet the rock was found, and, to our joy, the rock-hewn channel also. It is 1 foot 10 inches wide, 4 feet 3 inches deep, both sides cut down perpendicularly, and the bottom round, at a level 2,088 above the sea.[1] On the top of the sides there were grooves 7 inches deep and 8½ inches broad, to take the covering slab, which was no more in its place, and hence the conduit was full of earth. The fact that there was such an aqueduct (as suggested by the Rev. W. T. Birch in his letter dated March 19th, 1886) is now fully proved.

As I did not find the one in which the water now runs at the same level, I presume it must be more to the west, but not very far, perhaps, as I have shown it in section of shaft *C*.

I got the impression that a road ran northwards, on a rock-hewn terrace, from the dam of the large Pool of Siloam to the Virgin's Fountain, and that the old conduit ran beneath the pavement of the road as I have shown in the sketches.

Then arose the question—whether the conduit (from shaft *C*), northwards and southwards, should be cleared out or not? It only wanted strong boards to put on the edges, so that a man could work without danger; but as I had no funds nor directions in the matter, I ended the work by filling up the shaft. When desired, it can be easily opened again, or others made north or south; and I would suggest also that excavations be made to come upon the first shaft of the present water conduit. Its proper place must be ascertained from the revised plans of the conduit, to which I have no access, for since the Ordnance Map was made in 1864–5, the conduit has been re-examined by Warren, Conder, and others, and drawn on a large scale in Warren's large maps of Jerusalem.

Southwards at *D* (printed plan), I excavated (several years ago) this conduit, where it goes westwards to the large pool, and found, about 20 feet from its mouth in the scarp, a place where a door was formerly fixed, so that no one could come into the town by way of the aqueduct when it was locked. A little northwards from the mouth of the conduit there is an artificial cleft in the scarp, several feet wide, which was a regular entrance into the town for foot passengers; it had of course a small door, that could be locked, as I have shown on the (printed) plan. This explains what appears to be a western branch of the aqueduct; but the level is about 1 foot or more higher than that of the aqueduct.

When one entered the town there was a similar road, or rock terrace, going westwards to the neighbourhood of the present Pool of Siloah, and, when that pool and the new conduit were made, an aqueduct, in which

[1] I levelled from 2,081 at the ruined building in east of large pool, and also from street going over to the village from the contour 2,079, and found it by a few inches, both levelling agreeing.

the water runs now, was hewn in this rock terrace, towards the wall of the rock or scarp.

Captain Conder makes the remark, that my second aqueduct cannot have been such an one, as the levels will not agree. Now the Ordnance Map shows the level 2,081 feet (a tank in printed map) at the top of the bridge or dam of a large pool near (west) the ruin of a building. I found the outlet of my aqueduct (if I may call it so), or the "second," to be 5 feet higher; hence 2,086 feet above the sea. The bottom of the Virgin's Well is 2,087 feet; the difference is, therefore, only 1 foot. But even at present, the sole of the canal itself is 2 feet 6 inches above the bottom, hence 2,089 feet 6 inches at Virgin's Well; and where it comes out, on western or upper side of the pool, 2,087 feet; therefore the whole fall is 2 feet 6 inches, for 1,650 feet in length, or 1 inch for 55 feet. The second aqueduct is shorter, only about 1,150 feet long; at the same rate there would be a fall of 1 foot 9 inches, and hence the outlet would be 2,087 feet 9 inches high, a difference of 3 inches; but as at shaft *C* I found the bottom of the second aqueduct more inclined, I think the head at Virgin's Well was at that time about 1 foot 6 inches, or even more higher, and that at that remote time the water came out from a cleft between the layers of the rock or some other fissure, and ran originally in the bottom of the valley. In order to shut it up, and hide the spring from an invading enemy, King Hezekiah worked out the basin, and so made the outlet at a little lower level. This explains why the water now comes out from under the lowest step of the lower stairs, as the real source is more to the east.

C. SCHICK.

JERUSALEM, *Sept. 7th*, 1886.

GATH AND ITS WORTHIES.

BY THE REV. HENRY GEORGE TOMKINS.

TELL ES SÂFI: "Memoirs," II, p. 440; "Name Lists," p. 275; Sheet XVI; "Tent Work," II, p. 153; Murray, p. 263.

PERHAPS I can help a little towards settling the position of Gath, which has been placed at Tell es Sâfi.

The Arabic name means "the clear or bright mound, here called Alba Specula," the Blanche Garde of the Crusaders. Close by we find Wâdy es Sâfi and Khurbet es Sâfi, the Valley and Ruin of Sâfi; and I think that, as in so many instances, this is really a proper name, and, if so, one of great interest, for then we have the very name of a great worthy of Gath still sprouting from the soil.