

July 9th, 1894.

I was called away this afternoon for the purpose of photographing a magnificent mosaic a couple of hundred yards west of St. Stephen's, north-west of the Damascus Gate. When the Pasha heard of its discovery by the owner in the course of digging for foundations he arrested the work, and put the matter in our hands. I sent my foreman with labourers to complete the excavation, and on Saturday a photograph was taken, but not satisfactory, so we must try again to-day. Full reports will be given later; here I may say that it is a splendid piece of work, about 21 feet by 13 feet, with a small apse pointing almost exactly east. Within a beautiful border, springing from this base is a vine with ramifying branches, on which hang grape clusters; among the branches are numerous birds, peacocks, ducks, storks, an eagle, a partridge, a parrot in a cage, &c., &c. It is almost perfectly preserved. Near the east end there is an Armenian inscription, to the effect that the place was in memory of the salvation of all those Armenians whose names the Lord knows. It is evidently a mortuary chapel. The *débris* over the walls is hardly more than 3 feet, and the chapel rests on the rock, which doubtless contains tombs and coffins. The mosaic is similar to that found on the Mount of Olives with the Armenian inscription, but is far more elaborate, being the finest work of the kind ever found here. It is clearly Byzantine. The pattern is identical with that found in our mosaic near the counterscarp, and the walls of the two rooms are of the same construction. Hence our mosaic is also doubtless Byzantine.

F. J. BLISS.

JERUSALEM NOTES.

By HERR BAURATH VON SCHICK.

1. *The Muristan*.—In rebuilding the ancient church, St. Maria Major, the foundations of the old building—not only of the piers of which I have already reported, but also of the walls—were found so defective that the remaining parts of the walls had to be taken down. The foundations go down only from 8 to 10 feet below the surface and rest on rubble, small stones, and earth of no solidity. The north wall has already been taken down, together with the entrance arch, with the figures of the months of the year, but the stones will be preserved, and put up again as they were before.

This state of things delays the advance of the building and adds greatly to the expense.

The German Emperor has ordered this new church to be called "Erlöserkirche," or Church of the Redeemer. Nothing of interest was found in the rubbish, except the proofs that here was once an important

quarry, which must have been made before the second wall was built; hence in the time of the early Jewish Kings.

2. *A Colony of Bokhara Jews.*—Although the immigration of Jews to the Holy Land is restricted by the Government, yet it seems that the Jews are increasing in number, especially those from Mohammedan countries, and bringing money with them. Those from Bokhara are about to build a village. They have bought a large tract of land, north-east of the so-called "Plantation," an English property, north-west of the city, 1,700 yards distant from the town wall. It is on the ridge between the upper part of the Kedron Valley,¹ near the Jaffa road, and the upper part of a branch valley more to the north, but south of the tombs of the judges. At the western end of this ridge stands a guard-house—then comes the ridge with olive trees and some new houses; further east, Mr. Schneller's Orphan Asylum, then "the Plantation," and close to it the Bokhara settlement. As the ridge becomes here more and more narrow, a great part of this settlement stands on its northern slope. It is laid out in regular and wide streets crossed by one or two others, and the houses are very well built. About 40 families are already residing there and new houses are being erected. The natives call this place now "Bokharieh." I intend to go there when I find time and measure everything for a plan, which they themselves wish me to prepare, as they want one to send to their friends in Bokhara. They seem a healthy people and are well dressed, the opposite of the poor Yemen Jews, of whom also there are a great number here in several settlements, the bulk being settled below Siloah, where there are now four long buildings on the slope of the eastern mountain.

3. *The English Hospital.*—For many years there has been, especially on the part of the English doctor, a desire to build a new hospital outside the town, and in the best manner. The site chosen is the Sanatorium of the London Society for Promoting Christianity amongst the Jews. The spot is noted in the Ordnance Survey Map, scale $\frac{1}{10000}$. It was used by the mission staff to camp there during the summer months, and hence its name. A new Girls' Mission School was three or four years ago built there by the society under my direction, and now the hospital building has been commenced on the remaining portion of land. It will occupy a great deal of space as the plan, made by a London architect, is on the pavilion system. It will be the only one here on that system. It is remarkable that nearly all the new hospitals here are situated on the same ridge which comes out from the city and extends in a north-westerly direction. Inside the town the new Greek Hospital is on it, immediately outside the new gate, the French, then comes the Russian, then Dr. Sandrezky's Hospital for Children, then Rothschild's Hospital, then further out the new German Hospital, then the English one about to be built, and beyond it, on the highest part of the ridge, close to the Jaffa road, the new

¹ In this upper part called Wady Luca, then Wady el Jos, and further down Kedron.

Hospital of the Municipality. Still further out, on the water shed, a piece of ground has been selected for a Jewish Hospital by the German Jews, who have already applied to Constantinople for a firman. In regard to its plan, I had to give my assistance. So there will be *nine* hospitals, one after the other, on the same ridge, and the road going along it (passing also my house) will rightly bear the name "Sanatorium Road," which we gave to it many years ago on account of the above-mentioned Mission Sanatorium.

4. *The Russian Orthodox Palestine Society* is getting by degrees nearly all the Russian establishments in this country under its rule, except those of the Government. The Russian Hospital, some time ago, came under it, and is now about to have the arms of the society put on the top of the building, as has already been done on several other buildings, to mark them as the property of the society.

5. *Rock-cut Aqueduct on Skull Hill.*—The ground with the so-called "Gordon's Tomb" at the "Skull Hill" having been sold to an English association, they are now about to enclose it with a wall. In doing this an interesting *rock-cut channel* was found just on the top of the said tomb or rock-cut cave. It comes from the east, at the northern brow of the hill in a south-western direction, and near the edge of the rock turns due west, as I have shown in the plan.¹ The channel is *on an average* 6 feet deep, 2 feet wide at the top, and 15 inches at the bottom, where it is rounded. It has a strong decline towards the west, where also the rock becomes low, as the section shows. It seems to me that it was intended to take all the surface water falling on the "Skull Hill" to the cisterns now in the ground of the Dominicans, and made deep enough for the rain falling on the eastern part of the summit to be brought hither.

On the top of the sides of this channel there is the rock, but another smaller channel crosses the large one, by which the water, if stopped in the large channel, could flow over the edge of the rock scarp as a cascade into the cistern of the ground with Gordon's Tomb, as plan and section show. At first I had an idea that this large newly-found aqueduct might be the long looked-for *continuation* of the one coming from the twin pools under the Sisters of Zion, to the northern town wall—the most distant trace of which, outside the wall, was found near the entrance to the Cotton Grotto. If this is correct, it would have surrounded the Skull Hill; but would the levels allow such an idea? In order to solve this question I have levelled from the nearest bench mark (which is on the Sheikh's buildings west of the Nâblus road, and 1,400 feet north of Damascus Gate) to the bottom of the rock-cut aqueduct, 700 feet south of the said Sheikh's Tomb, and found it to be 2,521 feet above the sea. It agrees with the contours there as entered in the Ordnance Survey Plan $\frac{1}{25000}$, being at the point where the ground over the aqueduct is highest, 2,529. The surface of the rock is near under it, viz., 1 foot, and

¹ All the plans and sections referred to in these notes are preserved in the office of the Fund.

the aqueduct 7 feet deep brings it also to 2,529. The B.M. on the Sheikh's Tomb is 2,534 feet 4 inches, hence the bottom of the aqueduct is 13 feet 4 inches lower, just as I have found by the levelling.

I am sorry they are filling up with masonry this newly-discovered piece of aqueduct in order to put the boundary wall partly upon it, and so this part will disappear. I will see that the mason makes a mark on the new wall, to show in future where the *continuation* may be looked for, and perhaps cleared out.

6. Of the *Muristan Inscription*, of which I recently sent a copy to you, I may say that at the same time I also sent a copy to Dr. Euting in Strassburg, who writes me as follows about it:—"I think I can read it correctly. It is a Hexameter, but not a good one. The cross at the beginning has to be read as F, and so it runs: FAMA VOLANT MUNDI PARTES GIRANDO ROTUNDI, *i.e.*, 'Fame goes round the parts of this round earth circling.'"

7. *A Rock Scarp*.—West and north-west of the place of the mosaic houses have been built, and boundary walls made. When recently passing, I observed a high rock scarp laid bare for a short distance and forming an angle, looking as if it had been a ditch; the workpeople said it had been a *bir* (cistern), but I could not detect any marks of former cementing. As the bottom was not yet reached, I cannot tell the depth of the scarp, but it is apparently above 12 feet. I have entered this scarp, and also some of the several new houses, on the plan. What is marked with the word "old" is a bit of old masonry, rising a little above the surface and marked in the Ordnance Survey Plan. The scarp was very probably connected with it, but not with the line given as "old foundations," which have since been removed. In this neighbourhood was also found the large lintel, respecting which I reported about a year ago. So that I think if the "third wall" did not pass here, as some have suggested, at least there once stood here a large and important fortified building. The egg-shaped cistern cut into the rock, which was found some years ago, would have belonged to it. One cannot say much that is positive about it, and I wish only to give the various details as they come to light; what they may have been is simply guess.

8. *New Drains*.—A few years ago the Russians made, under the inspection of the local authorities, a new drain from all the buildings on their property west of the city, by which all used water and dirty fluid was conducted down into the city drain, and so down to Siloah. In the accompanying plan I have shown in blue the line thereof with all its branches. It enters the city about 150 feet west of the Damascus Gate. In the course of the last 20 years several colonies or settlements of Jews have been built north-west of the city, and as no sewers were provided, the retention of the dirty water has made the settlements more and more unhealthy. The leaders of the settlements, therefore, resolved to make a drain, leading into the Russian one. The local authorities gave permission, and it was constructed for £500. But, as there is from the starting point in the west (more west than the plan shows) only a small decline,

and the distance is very great, and in its middle there is even a rise, the contractor did not make the channel deep enough, and the water could not run. A claim having been made at the Serai, it was ordered that the drain be made deeper, and that the Jews pay more for the work. I had to give my opinion, which was, that the decline must be one in a hundred, which the Russian drain would allow. The parties finally agreed to 0·5 per cent. decline, and even with this, they had, at one point, to go down 12 feet, and at another even 20 feet, blasting the solid rock with gunpowder, and causing great expense. The drain will be made so that a man may walk in it, and will cost about £1,000.

9. *Tombs of the Judges*, and the neighbouring ground.—Owing to the stoppage of a local bank, these celebrated tombs and the ground round about, in which are many other rock-cut tombs, are to be sold, and I have been commissioned to measure the ground and to find out the size of each of the various pieces, which I have done, and send herewith a copy of my plan on a reduced scale, showing the curious irregular lines of the boundaries of each piece, as, perhaps, this may be interesting to some members of the Fund. It will be seen that there is an ancient road (now no more in use) which certainly once formed also a division, and even now the land south of this road is *mulk* (private property), that north of it is *meri* or crown land. To build on the latter, permission must be obtained from Constantinople, whilst for building on the other, which is *mulk*, permission may be obtained from the local authorities. If, in course of time, new buildings should be erected here, the ancient road must be opened again, as I have shown in the plan with dotted lines. All these various pieces of ground are still called *Kerm* (vineyard), so it is clear that they were formerly vineyards.

10. *Interesting Cisterns and Winepresses*.—At the eastern end of the above-mentioned pieces of ground, there is also an old road going from south to north, and passing two cisterns; the southern is an inferior one, of no special interest, but the northern one is rather large, hewn in rock, under a kind of rocky platform, in which are hewn also winepresses. Of these I send plans and sections on a larger scale. The winepresses are like so many others found in the country, cut into the surface of the rock, and remarkable only for their large size. If full, their overflow would run into the cistern. The cistern is 60 feet long and 20 feet wide, and at present about 19 feet deep from the surface, but there is a great accumulation of earth and small stones in it, so that very likely it is from 25 to 30 feet deep. It has at its east end a long recess, also cut in the rock, $3\frac{1}{2}$ feet wide and about 10 feet deep (or long), containing very likely a stairway enabling people to go down into the cistern. The roof is rock, in a somewhat arched form, but the greater part flat, and in one place is a breakage in the rock, filled up with masonry arching. The cementing is very well preserved.

11. *Alterations in the City*.—It is well known that a fair or market for animals is held in Jerusalem every week, on Friday, at the open place or square, east of Gate Nebi Daud, inside the city wall. As mischief some-

times happened from frightened animals, and it was sometimes dangerous for people to pass, the weekly market is now held outside the town in the depression of the so-called *Birket es Sultan*, or the lower pool in the Western Valley on the side of the Bethlehem road.

12. In consequence of the increase of the population and of the railway traffic, some streets have become overcrowded with people, and heavily-laden camels could only with difficulty pass through, endangering the crowd, so that accidents repeatedly happened. It is now arranged that in those streets no camels can henceforth pass. At their ends iron bars forming narrow and low entrances are put, which no camel can pass but only donkeys or horses without a rider, and especially walking people. These hindrances are put at the top of Suwaikat Allun, at the Greek convent, at the Khankeh, and at the entrance of the Jewish quarter; Khan es Zait is still left open on account of the building work at the Muristan, to which camels have to bring stones, coming in by the Damascus Gate.

13. The excavations of Dr. Bliss are going on, and I take the liberty to go there once every week to see the state of things. It proves that the city wall was once situated a little more down the hill than was expected. Yet the question is not yet fully settled. It is strange that no proper wall or traces of such have hitherto been found except at the tower, but only very high rock scarps.

RESULTS OF METEOROLOGICAL OBSERVATIONS TAKEN AT JERUSALEM IN THE YEAR 1886.

By JAMES GLAISHER, F.R.S.

THE numbers in column 1 of this table show the highest reading of the barometer in each month; of these the highest appear in the winter, and the lowest in the summer months; the maximum for the year is 27·656 inches in December. In column 2 the lowest reading in each month is shown. The minimum for the year is 27·086 inches in March. The range of readings in the year was 0·570 inch. The numbers in column 3 show the range of readings in each month; the smallest, 0·196 inch, is in July, and the largest, 0·487 inch, in March. The numbers in column 4 show the mean monthly pressure of the atmosphere; the highest, 27·504 inches, is in December, and the lowest, 27·251 inches, in July. The mean pressure for the year was 27·385 inches. At Saronia the mean pressure for the year was 29·839 inches.

The highest temperature of the air in each month is shown in column 5. The highest in the year was 105°, on June 15th. The first day the temperature reached 90° was on April 30th. In May there were 2 days when the temperature reached or exceeded 90°; in June, 14 days; in