

were living in underground caves, and had not begun to build houses. They show us how late Paganism survived, a heathen temple having been built in 320 A.D., in the Hauran, to Apollo Aumos, by Arabs. In another case in Trachonitis such a temple appears to have been converted into a church. The gods of Greece—Zeus, Helios, Selene, Kronos, Herakles, Athene—were adored side by side with Arab deities, Dushera, Aziz, Aumu, &c. The Arabs were early converted to Christianity, and a Greek-Kufic bilingual of 586 A.D. shows that they built a church at Harrân only a few years before the Moslem Conquest.

Their creed was apparently heretical and Ebionite. They adored Sergius and Bacchus, Martha, Marthine, Elijah, St. George, and Job, side by side with "the God of Abraham, Isaac, and Jacob," and with Christ and the Virgin Mary.

The earliest distinctly Christian texts here, as in Italy, belong to the 3rd century, A.D. The Saints Martha and Marthine were adored, according to Epiphanius (Adv. Hæres., II), by the Elkaisites and Sampseans in Arabia (*see* Waddington, p. 570). These heretics of the 3rd century A.D. were also found along the Euphrates, and followed a prophet of Hadrian's time. They were great exorcists, and their doctrines as to the successive incarnations of our Lord were shared by the Nazarenes of Syria, whom the Elkaisites also resembled in their austerities. They appear to have been still known to Moslem writers in the 10th century A.D. as *Mughtasileh*, or "baptists."

C. R. C.

MOSAIC AND EMBROIDERY IN THE OLD TESTAMENT.

MOSAIC wall decoration is generally acknowledged to be of ancient origin, and I am inclined to regard this art as of extreme antiquity in Jerusalem, and as being perhaps of Jewish origin. There is, I think, distinct allusion to the use of mosaic ornament, or "embroidery in stone," in 1 Chron. xxix, 2, where King David is enumerating the materials prepared by him for the temple—gold, silver, brass, iron, and wood, onyx stones, שוהם, stones for setting, מלואים—"glistening stones of divers colours," אבני פוך ורקמה, and every precious stone יקר, and stones of marble, שיש. The words, אבני פוך ורקמה, rendered in our Authorised Version "glistening stones of divers colours," can be translated more closely to the Hebrew words and construction by "stones of colour and embroidery." פוך "Colour" may imply stain, or artificially produced colour; and רקמה, "embroidery," is rendered in Exodus xxxviii, 23, &c., &c., Judges v, 30, and Psalm xlv, 14, as embroidery and needlework in stuffs, and it carries with it the idea of overlaid, applied (*appliqué*) ornament (still much used in Egypt, Palestine, Turkey, Persia, &c.). Appliqué embroidery appears to have been used for stuffs

when parti-coloured רקמה designs were placed upon the material of which articles of dress or furniture (curtains, &c.), were made. Travellers are familiar with the bold designs thus placed as ornaments upon Egyptian tents. The Fellaheen of Palestine still embellish in this way the clothing worn by men and women, thus perpetuating the art which was used to decorate Joseph's coat of "*many colours,*" literally of "*many pieces,*" for that is the exact translation of כַּתְנֵי־פָּסִים (Genesis xxxvii, 3).¹ "Many pieces" of multi-coloured materials are employed to produce the effect—as may be more fully seen in the splendid embroideries of Resht, in Persia, and in the quaint patterns worked by the Turcoman women in their encampments.

But to return to "the embroidery in stone," known as mosaic. Some writers have ascribed the origin of the art to Moses, the Hebrew Law-giver. Be that as it may, there is in 1 Chron. xxix, 3, evidence that the art was known to King David and his people.

Josephus also appears to refer to it ("Antiquities," viii, 5, 2) as having been used for wall decoration in the palace of King Solomon:—

"To this was joined another house that was built for his queen. [It is well to remember that the Hebrew word בֵּית, house, often means 'room,' though it is also used for 'mansion.'] There were other smaller edifices for diet and for sleep after public matters were over, and these were all floored with boards of cedar. Some of these Solomon built with stones of ten cubits, and wainscotted the walls with other stones that were sawed, and were of great value, such as are dug out of the earth for the ornaments of temples and to make fine prospects in royal palaces, and which make the mines whence they are dug famous. [This mention of thin marble slabs for wainscotting reminds one of the sculptured slabs used in Assyria for the same purpose which have been found at Nineveh, &c.] Now the contexture of the curious workmanship of these stones was in three rows, but the fourth row would make one admire the sculptures, whereby were represented trees and all sorts of plants, with the shades that arose from those branches and leaves that hung down from them. Those trees and plants covered the stone that was beneath them, and the leaves were wrought so prodigious thin and subtle that you would think they were in motion; *but the other part up to the roof was plastered over, and, as it were,* EMBROIDERED WITH COLOURS AND PICTURES."

This passage brings before us the splendid walls—built of great stones—marble-lined to a certain height; sculptured where on a level with the eye, and then high up, above the marble wainscot, enriched with glowing mosaic pictures of many colours, set in "plaster."

Observe that only the higher parts of the walls were thus embroidered. It is just in the higher parts that we find mosaic work in the Dome of the Rock on Moriah, at St. Sophia at Constantinople, and in the Church

¹ So also in 2 Samuel xiii, 18.

of the Nativity at Bethlehem. These latter were discovered during our residence at Jerusalem, when a happy chance revealed the fact that beneath the whitewash that covered the walls of the nave lay preserved the gold and coloured mosaic work, placed high (and in the Dome of the Rock at an angle), so as to reflect, as only "glistening" mosaic could, every ray of light coming from below or from above. The Church of the Holy Sepulchre at Jerusalem was decorated with mosaic in former times, but this was destroyed by the great fire of 1808. I have myself picked up many fragments of mosaic out of the *débris* from that fire, which still lay (when first we went to Jerusalem) in heaps on the hill west of the city beyond the Valley of Gihon. I still possess some of the little cubes in red, green, blue, and well-gilded glass. I have also found similar mosaics in the ancient baths, probably Herodian, which we discovered in Solomon's gardens at Umtas.

Incomparably the finest specimen of mosaic decoration still existing in Palestine is preserved for us in the Dome of the Rock on the Temple site at Moriah—that treasure-house of exquisite design, execution, colouring, and form, which beautifies the otherwise desolated site of former Temple magnificence. Here we find the sumptuous mosaics above the marble pillars, in the rising of the arches up toward the spring of the great dome, where but for the reflection from their brilliant surface the effect would be dark and sombre. The arabesques are boldly traced in colour on the golden ground to shine and sparkle in a thousand tints, produced by the play upon the mosaic of the changeful lights that reach them through open door or coloured window as the sun passes round from his rising over Olivet to his setting in the west. There is here a faint reminiscence of the Temple splendour, with its carvings wrought in gold—its metal work in silver, brass, and iron—its onyx, its gems—its precious stones and marble, and its mosaics in "glistening stones of divers colours"—"stones of embroidery," used where blended tints and reflected lights could now subdue and now enhance the glory, and bring out the full, rich harmonies of tone and colour in that resplendent sanctuary.

The use of mosaic pavement in Palestine was evidently very ancient. I have found the small stone cubes, red, black, and white, scattered in every part of the country—among the ruins of towns and of villages, and also loose in ploughed fields at a distance from any village. We discovered remains of pavement, in various places, only hidden by a few inches of soil, where little else remained to show that here had been some dwelling or public building.

The finest specimen still extant near Jerusalem is the pavement which covers the floor of the old Georgian Church, in the Convent of the Cross, west of Jerusalem (now in the hands of the Greeks), which still bears sad traces of the murders of the Christians who had sought shelter within their sanctuary, when Chirose, the Persian king, and his heathen army broke in upon them. The great purple stains testify to the fate of those poor martyrs, while at the same time giving us some certainty as to the age of this most interesting mosaic floor.

While tracing back the history of embroidery in stone, the kindred topic of embroidery in stuff claims attention. I have referred above to the earliest allusion to appliqué work in the history (Genesis xxxvii) of Joseph's coat of many colours, and we find repeated mention of the same art in the history of the preparation of the Tabernacle in the Book of Exodus.

"An embroiderer," רוקם, was one of the artificers mentioned, Exodus xxxviii, 23, as distinct from the "designer" or "thinker," חושב.

The embroidery in blue, purple, and scarlet, that is, the laying on of thin and coloured material (for that is the meaning of the verb רוקם, with which is closely connected the idea of thinness, as in Arabic, رقيق, and رقيق), was used for the hanging of the gate of the outer court (Exodus xxvii, 16); for Aaron's brodered coat (Exodus xxviii, 4); for his girdle and those of his sons (רוקמה); "Appliqué embroidery" (translated "needlework") is also mentioned in Judges v, 30, and in Psalm xlv, 14. The word would also be accurate in describing embroidery wrought on to stuff in gold thread, coloured silks, or braids, and in Judges v, 30, this is spoken of as רוקמתים, applied embroidery, the same on both sides. The women of Israel thus appear to have been celebrated in the days of Deborah for their skill in embroidery, and to have practised the art, still preserved among orientals in Turkey if not in Persia, of working so that both sides should do alike—the wrong side as well as the right side; for the word used by Sisera's mother means "embroidery in double" (Authorised Version, "needlework on both sides").

Skill in original design is also expressly mentioned in the history of the preparation of the Tabernacle.

The very same verse (Exodus xxxviii, 23) which mentions Aholiab as the "embroiderer," רוקם also mentions him as a designer, חושב literally "thinker" (Arabic حسب to think, calculate). This word is rendered in our Authorised Version "cunning workman." In Exodus xxxv, 32, חושב מחשבות means "thinker out of thoughts." "To devise curious work," in Exodus xxxi, 4, לחשוב מחשבות, "to think out thoughts," whether in gold, silver, brass, precious stones, wood, or embroidery. Bezaleel and Aholiab were specially given skill in design and in execution, that they might carry out under Moses' direction the plans given upon Mount Sinai.

Who that has watched the "cunning workmen" of to-day in the Bazaars of Jerusalem, Damascus, or any other Eastern city can fail to be reminded of these illustrious artificers who were, to some extent at least, founders of these arts in Israel.

The worker in metal, as he carries out the beautiful design which he devises as he goes on, is no less interesting than the gem or seal engraver, deep in thought as he turns the polished stone hither and thither, pro-

ducing the desired name or couplet, and beautifying it with here a flower and there a leaf cunningly inserted among the flowing lines. Thus (though probably without the added ornaments) were graven the golden plate for the head dress of the High Priest (still existing in our Lord's day), and the inscriptions on the precious jewels for his shoulders and for his breastplate.

And so with the embroiderer. We see the survival of the art in the rich effects produced by the Eastern craftsman as he sits upon his shop-front laying braid or fine gold thread in mazy and intricate patterns, designing as he works, and embellishing the velvet, cloth, or silken cushion, or jacket which he is making.

That gold thread was used in the Tabernacle embroideries is certain from Exodus xxxix, 3, where, in speaking of the working of the Ephod, it says that they "beat gold into thin plates and cut it into wires," literally "threads," for the word here, פתילים, is to this day used for the soft threads of lamp-wick, and the same word is used in Arabic for the same thing. (See also "lace," for "braid," in Exodus xxviii, 28.)

This gold thread was made to work in with the blue, purple, and scarlet with "cunning work" (design). The "cunning work" of embroidery was used not only for the Ephod, but also for the breastplate (Exodus xxxix, 8, 15), for the curious girdle of the Ephod (xxviii, 27, 28, 39; xxix, 5; xxxix, 5, 20, 21).

It was in this kind of work that the Cherubim were wrought into the ten curtains for the innermost covering (Exodus xxvi, 1), and for the vail before the Ark (xxvi, 31). As to Aaron's coat, כתונת (Exodus xxviii, 4, 39), that was to be enriched with שבץ, "chequered" embroideries. This is the very word used in Psalm xlv, 14, for the golden chequered robe of the King's daughter, "all glorious within," as well as on the outer or right side of the work. The chequered pattern of gold thread embroidery among coloured silks may still be seen in oriental work, and it is one of the most magnificent in effect. Enough oriental art remains to this day to give us some idea of the splendour of the embroideries in stone, and in gold and silk, as wrought by the ancient Israelites for the Tabernacle in the Wilderness and for the Temple on Moriah.

E. A. FINN, M.R.A.S.

THE ELMS, Brook Green, W.

NOTE.—For the use of the verb השב (to think out), see Amos vi, 5, where it is translated "invent" (instruments of music like David); and Daniel xi, 24, "forecast devices."

SUN-BIRDS.

ON page 41, January *Quarterly Statement*, Dr. Selah Merrill mentions having seen and shot the Palestine Sun-bird at Jaffa, and in the Jordan Valley. We saw some near Jericho in February, 1847, and obtained specimens; and we had in the museum of our Literary Society at Jerusalem, a specimen which had been shot at Sidon by Mr. Abela, who prepared it and sent it to Mr. Finn. We also, like Dr. Merrill, noticed the great variations in the coming to Palestine, or to parts of the country, of migratory birds. The natives always rejoice when great flocks of storks come, as bringing good crops and prosperity. They eat the locusts. Some years none were to be seen near Jerusalem.

We saw them in August, 1859, nesting in the pine trees near Acre. (Ps. civ). It is very curious to see and hear them on their departure early in November—when they wheel in vast hollow circles over Jerusalem. The numbers of small migrants also varied greatly.

I have also heard in October, on a still starry night, vast numbers of bee catchers passing westwards (or south-westward). I tried in vain to see them; standing in the open air for some time. There was neither cloud nor mist, yet they could not be seen though heard most distinctly, and the snapping of thousands of little beaks had a most singular effect, while the birds were invisible. This snapping sound is familiar enough in the hot summer weather in the day time, when the bee catchers fly and wheel after their prey, their bright plumage glittering in the sunshine. The storks, when wheeling in the air, also make a clapping noise, with either their beaks or their long legs.

E. A. FINN.

NEHEMIAH'S WALL.

MR. G. ST. CLAIR holds (January *Quarterly Statement*, pp. 47-50) that as the Upper City was (according to Josephus) surrounded by a wall of its own, therefore the defences of the south end of the Tyropœan must have formed a bay or loop line. This was the view taken by Mr. Finn and myself when in Jerusalem, and we hold, as Mr. St. Clair does, that here were the "two walls" between which Zedekiah escaped by the King's garden to the Jordan Valley (Arabah), as Manasseh appears to have attempted before him (2 Chron. xxxiii, 11), when the Chaldeans "caught (or seized) him among the thorns," and as the Jewish leaders attempted to do after Titus had taken the Temple.

"They caught Manasseh among the thorns" is closer to the Hebrew than our translation—

וּלְכַדוֹת מְנַשֶּׁה בַּחֲוִים

Was the Tyropœan even then a place for thickets of thorns? as it is now, full of prickly pear cactus.

E. A. FINN.

THE STONE MOUNDS ON THE REPHAIM PLAINS.

ON page 22 of the January *Quarterly Statement*, Herr Schick mentions the Seba' Rujum near Bait Safâfa, on the Plain of Rephaim, south-west of Jerusalem. These mounds of loose stone are of great size, and are *unlike* others in the country. It would be very desirable that they should be examined. The accumulation of small stones in them is enormous, and evidently ancient. We always regarded them as artificially made for some special purpose—possibly as burial cairns on a battlefield, and certainly erected with immense expenditure of time and labour. Can they be memorials of the defeat of the Philistines by David? (2 Sam. v; 1 Chron. xi, xiv).

E. A. FINN.

THE WATERS OF MEROM.

THE Rev. Canon Gover argues (p. 52 January *Quarterly Statement*) that the expression "the waters" should not be understood to mean a lake, but rather a stream and its head waters.

An instance in point may be found in Joshua xvi, 1. "The waters of Jericho," probably Elisha's fountain and the stream that flows from it.

A similar expression is used in Scotland—"Allan waters," "the water of Gala," &c. Canon Gover also mentions Misrephothmaim, pp. 52-53. I would suggest the great headland north of Acre, now called the "Musheirifeh," as probably Misrephothmaim, even though the Hebrew letter is *Sin* not *Shin*—Misraiphoth of the Sea—as in Symmachus. Was not "the Valley of Mizpeh eastward" of Josh. xi, 8, the Valley of Safet? מצפה = מצפה. Mr. Finn held that Safet was Mizpeh.

It is well to note that the difference in Hebrew between Madom and Marom would only be that between ך and ך (D and R) מדרום or מרום.

E. A. FINN.

THE TSINNOR.

So much depends on the identification of the Tsinnor or "gutter" of 2 Sam. v, 8, at which Joab climbed up into the Jebusite fortress, that I venture to contribute a few remarks on the subject based upon the Bible narrative and that of Josephus, and the discoveries of Sir Charles Warren.

First as to the meaning of the word Tsinnor, צנור. It occurs in Psalm xlii, 7, where it is translated "waterspouts," but "gutter" or "watercourse" would seem to be more correct if we take into account the Chaldee form צנרון, as used in the Targum of Ecclesiastes i, 7, for נחלים, brooks (hollow channel).

Secondly as to the site of the Tsinnor of 2 Sam. v, 8. Josephus, in his paraphrase of 2 Sam. v, 8, tells us that there were ditches at the base of the citadel.¹

It is most important to notice that Josephus declares that the Upper City, "called by us the Upper Market-place," was that upper city which King David took from the Jebusites and called the Citadel (Wars v, iv, 1, and Ant. vii, iv, 1). The "ditch," therefore, by which Joab climbed was a "ditch," gutter, or "narrow watercourse," at the foot of the Upper City on the south-western hill, called in the Bible Zion.

This establishes the identity of Zion (though Josephus never uses that word), the city of David, with the Upper City and Market-place of Josephus, on which he tells us were the palaces of David; of the Asmonean Princes and of Herod. Now there is but one place connected with the south-western hill, where a narrow watercourse has been found sufficiently important to be mentioned, as the Bible and Josephus mention the "gutter" and "ditch" in the description of the Fortress Hill. That watercourse, ditch, or gutter, is cut in the rock just above the lowest cleft of the Tyropœan, where it separates the east mountain, Moriah, from the South Western Zion. It was discovered and thoroughly examined by Sir Charles Warren, who came upon it at Robinson's Arch, some 70 feet below the present surface of the ground. It is cut in the side of Zion, only 24 feet above the bottom of the Tyropœan, itself a mere gully at this part (and at present filled up to a depth of 89 feet).

At page 124 of "The Recovery of Jerusalem," Sir Charles Warren says: "The west wall of the Sanctuary at Robinson's Arch cuts through an ancient system of rock-cut water ducts and tanks running along the western side of the Tyropœan Valley," *i.e.*, at the base of the south-western hill, Zion.

The discovery was made while examining a pavement (deep down below Robinson's Arch)—a pavement belonging to a roadway evidently of great antiquity. Upon it the great voussoirs of Robinson's Arch were found lying huddled just as they had fallen at its destruction. Below this ancient pavement, at a depth of 23 feet, were found two great voussoirs of an arch (belonging to a still older viaduct) "jammed in over a GREAT ROCK-CUT CANAL running, from north to south, 12 feet deep and 4 feet wide, its eastern side being about 12 feet from the Sanctuary wall [the western wall], but it does not run parallel to it, and was probably in use before this portion of the wall was constructed" [by Herod the Great; for here we have his addition to the Temple, which he carried for symmetry's sake across the Tyropœan on the base of Zion.]

Here, then, we have a canal, ditch, Tsinnor or gutter, worthy of mention as a landmark. It was arched over. Sir Charles Warren examined it northwards. At page 107 we read: "Higher up towards the north this canal was found to open into a circular rock-cut pool, of which only half is to be seen, as it is CUT THROUGH *by the foundations of the Sanctuary wall,*"

¹ Considering the then depth of the Tyropœan in its original condition at its narrowest point, Josephus may have held it to be one of the ditches.

which shows that it existed before Solomon built that wall; for here we reach the old part that was built by him.

On page 109 Sir Charles Warren says, "the winding aqueduct was cut in the rock" before the Temple was built. That is to say, we have here at the narrowest part of the Tyropœan, just above its bed, and on the shelving base of the mountain, a vast cutting of 12 feet deep by 4 wide *in the live rock*. This was on the eastern outer side of the Zion fortress, and before the neighbouring mountain of Moriah was built upon or walled, while it was yet the property, the open threshing floor of Ornan the Jebusite.¹ This gutter in David and Joab's time was a deep-cut trench on the right bank of the Tyropœan. From the Bible narrative, 2 Sam. v, 8, we learn that it was David who appealed to his army to smite the Jebusites (whose blind and whose lame scoffed at him), and named the gutter as the point to be reached. From 1 Chron. xi, 6-8, we learn that it was Joab who first went up and won the chief command.

Josephus exactly confirms this: "The King, knowing that the proposal of dignities and rewards would encourage the soldiers to greater actions, promised that he who should first go over the ditches that were beneath the citadel, and should ascend to the citadel itself and take it, should have the command of the entire people conferred upon him. So they were all ambitious to ascend, and thought no pains too great in order to ascend thither. However, Joab, the son of Zeraiah, prevented the rest, and as soon as he was got up to the citadel, cried out to the King and claimed the chief command. And thus were the scoffers silenced."

Later, when the Temple fortress was built, and its stupendous walls on Moriah crowned the left bank of the Tyropœan, this ditch became "the fortified ditch" between the two walls of Zion West and Moriah East. See Josephus, Ant. x, viii, 2, as to Zedekiah's escapé to the desert. In 2 Kings xxv, 11, Jeremiah xxxix, 4, and lii, 7, we read that Zedekiah fled "by the way of the gate between the two walls which is by the King's garden to the plain" (Arabah, *i.e.*, Jordan Valley), where he was caught in the plain of Jericho. The Temple was already in the hands of the Assyrian army. Zedekiah was therefore fleeing from the citadel, which had not yet been taken, down through the ditch between the two walls of Zion and the Temple (on his way to the Kedron Valley). The same thing was also attempted afterwards by the Jewish leaders in the Upper City after Titus had captured the Temple (Wars vi, viii, 5).

But in David's time the ditch or gutter was not thus protected and shut in. It was, nevertheless, an additional defence for the citadel of Jebus just at the point, where, far up the face of the mountain, the fortress stood upon the scarped cliffs visible to this day as we look from Olivet towards Zion. Truly this part must have seemed to the Jebusites

¹ It is worth notice that David paid Ornan 50 shekels of silver for the threshing floor and for the oxen—(2 Samuel xxiv, 24); but that he gave 600 shekels of gold for the place, that is for the whole Temple site—the mountain, which Solomon walled round for the Sanctuary—(1 Chron. xxi, 25.)

so absolutely invulnerable that we can understand the boastful insolence of the blind and of the lame. The Tyropœan, in its then condition—90 feet deeper than it now is—a mere gully between the two mountains—was no insignificant obstacle to any attack from this side.

Well did Joab deserve his promotion when he reached the ditch, and scaled the rock, surprising the garrison, much as the garrison of Edinburgh Castle was surprised in days of yore, when the seemingly inaccessible rock was scaled by a daring soldier.

In searching, while we lived in Jerusalem, for the Tsinnor, we remembered how invariably the eastern mount, Moriah, had been taken before the upper city, Zion. It lies lower, and was more accessible to attack. It must have been still more so in David's time, before it was walled and fortified by the Temple buildings.

But we never could satisfy ourselves that the Tyropœan valley, as it now is, fully answered the idea of a Tsinnor, though it fairly suited that of a fortified ditch between two walls of Zedekiah's time. But the discoveries of Sir Charles Warren have revealed not only the amazing depth and straitness of the Tyropœan gorge, and its true course, bending eastwards, but have also at this very point traced out the great rock canal at the base of Zion, and have demonstrated that this canal, a veritable Tsinnor or gutter, existed before Solomon built the Temple, in the days of David and of the Jebusites.

It is shown in "The Recovery of Jerusalem," in a picture on page 105. And the mouth of it is shown just west of Herod's Temple wall, in the elevation of south front of the noble Sanctuary, which also shows the slope of Zion as it falls into the deep Tyropœan bed on the right (page 119).

If the elevation were continued westwards we could better understand the full height of Mount Zion, the Upper City, 110 feet higher than the summit of Moriah (which is 2,440 above the sea level).

Moriah was the possession of Ornan—a royal possession indeed; and from 2 Sam. xxiv, 23, he would seem to have been the Jebusite king. The Hebrew text here says, "All these did Araunah, a king, give unto the king."

This may help us to understand the references to the king's dale, and to the king's gardens, in the Kedron Valley, between Moriah and Siloam—now and for many ages the property of the Siloam people. In looking for any living relics of the Jebusite people who were still existing in the days of Ezra and Nehemiah, and of whom some probably still exist as native Fellahîn, the most likely villages would doubtless be Siloam—Et Tûr (on Olivet), Abu Dis, and perhaps 'Aisawiyeh, north of Olivet, and Beit Sakhur, south of Siloam (Josephus, Wars, v, ix, 4, speaks of the Siloam gardens and of the people as being then enemies of the Jews).

It is from some of these villages and others that Sir Charles Warren obtained the sturdy labourers who worked so well under him and his Royal Engineers in tracing the mighty works of Solomon and of the Jebusites before him.

E. A. FINN.

IRRIGATION AND WATER SUPPLY IN PALESTINE.

MR. WILLIAM SIMPSON, in his interesting paper (p. 55 January *Quarterly Statement*), mentions the system of pits for water connected with shafts at intervals, and linked by an underground tunnel, as seen by the Rev. Mr. Harper and the Rev. J. Niel in the Vale of Siddim, also found at Surtabeh and Damascus.

Mr. Simpson found the same system in use in Persia and Afghanistan, where the pit and tunnel are called Karaize. Sir R. Burton also mentions them. The same system is still in use in Cyprus, where professional well and aqueduct makers construct them 'as in olden times, in what look like waterless districts. The word used in 2 Kings iii, 16, is גַּרְבַּי (reservoir), and also in Isaiah xxx, 14, Jeremiah xiv, 3, and again of the Siddim Vale in Ezek. xlvii, 11, where our version gives "marishes." The same word is still in use in Palestine, e.g., the well known Jebb (جَبَّ) Yussuf between Siberias and Safet.

E. A. FINN.

THE STONE (EBEN) OF ZOHELETH.

As no one has yet produced an instance (1889, 44) from the Bible of *eben* meaning a *cliff*, it may safely be concluded that such is not to be found. Major Conder's note (*id.* 90) fails to meet the case, for he quotes Gesenius as rendering *eben rock* (Gen. xlix, 24), but the dictionary says that "some persons apply the term (*rock*) to a stone of any size, and speak of boys throwing *rocks* at each other—a supremely ridiculous expression."

In the verse above, the A.V. and R.V. render the word "the stone of Israel." The Arabic *Zehwele* (for all that I know) may come from the Hebrew *Zohelath*; but it is an utter impossibility for a solid *cliff*, however slippery, at the village of Siloam, ever to have been the moveable stone of *Zohelath*, close to Enrogel, several hundred yards distant from that village.

Several explanations have been given of the word *Zohelath*. If the expression means the stone of "moving to and fro," let me offer the conjecture that it was a *logan* (or rocking) stone which will *log* again, whenever the *débris* of centuries is thoroughly cleared away from near Enrogel.

W. F. BIRCH.

GIHON.

ON p. 124, Dr. Chaplin thinks it not improbable that the name Gihon (Fountain of the Virgin) was derived from "*gahan*, to bow down, to prostrate oneself, and was originally applied not to the fountain, but to