of an extension of your researches to Phonicia itself, a country so intimately connected with the history and culture of Palestine. Thus much only I would, from careful personal investigations on the spot, beg to place on record—that the French Expedition of some years back has been far from exhausting the field of research.

I ought not to omit that, in the course of an interview I had with the Pasha of Jerusalem, His Highness repeatedly assured me of the great interest he took in the objects of the Fund, and promised to do the very best in his power to forward the operations.

EMANUEL DEUTSCH.

G. Grove, Esq., Hon. Secretary, Palestine Exploration Fund.

NOTES ON JEWISH SYNAGOGUES IN GALILEE.

BY CAPTAIN C. W. WILSON, R.E.

DURING the late expedition to Palestine, the remains of several undoubted Jewish Synagogues were examined, and it is proposed in the following paper to give some account of their arrangement and construction as shown by the existing ruins. The synagogues visited, nine in number, are situated in the district north of the Sea of Galilee at Nebartein, El Jish, Kefr Birim, Meiron, Um el Amud, Irbid, Tel Hum, and Kerazeh. Some other remains of the same description were said to exist in the hills above Tyre, but that part of the country did not come within the work of the exploring party.

In choosing sites for the synagogues in the different towns, the builders have by no means selected the most prominent positions. That at Nebartein lies below the old town, at Meiron a site has been excavated in the rocky side of the hill, and at Irbid the building is awkwardly situated in the lower part of the town, some distance down the northern slope of the hill, which has been partly cut away for it. Little is left of any of the synagogues. The stone has been carried away for more recent erections, and with the exception of Irbid, Tel Hum, and perhaps Kerazeh, they have not been made use of by the races who have occupied Palestine in later times. Those at Tel Hum and Kerazeh have possibly been turned into churches; that at Irbid, where the door is on the eastern side, has been used as a mosque. The entrances of the others being at their southern ends, which would have obliged a Moslem on entering to turn his back on Mecca, seems to have rendered them unsuitable for this purpose.

The buildings are always rectangular, having the longest dimension in a nearly north and south direction, and the interiors are divided into five aisles by four rows of columns, except in the small snyagogue at Kefr Birim, where there have been only two rows of columns and three aisles. The masonry of the walls is well built and solid, of native lime-



stone; the stones are set without mortar, the beds and joints being "chiselled in" from two to five inches, and the remainder rough picked; the exterior faces are finely dressed, but the backs are left rough, more readily to take the plaster with which the interiors seem to have been covered, and of which some traces remain at Tel Hum. Great attention was paid to the heights of the several courses, in the hope that some clue might be obtained to the length of the cubit or other measure used by the masons; but they proved to be very unequal, no two in the same building being alike.

With the exception of Irbid, where the form of the ground necessitated a different construction, the entrances are at the southern end, an arrangement hardly expected, as every Jew on entering must have turned his back on Jerusalem. The entrances are three in number, one large doorway opening into the centre aisle, and a smaller one on either side; the small synagogue at Kefr Birim has only one entrance. The doorposts have peculiar architrave mouldings, the details of which may be seen in the plans and photographs. Those at Meiron and Kefr Birim are identical, and those at Irbid are of the same character. The doors have all been folding ones with socket hinges, and closed by bars on the inside. In the large synagogue at Kefr Birim, which is used as an Arab house, the modern doors are hung in the old fittings. On the lintels over the doors there is much variety of ornament. At Nebartein is an inscription in Hebrew, and a representation of the seven-branched candlestick, similar to, though of rougher workmanship, than the wellknown one on Titus's Arch, and identical with one found in the catacombs at Rome. At the small synagogue at Kefr Birim is another inscription, and some defaced sculpture which evidently represents two animals lying down, one on either side of an open flower, possibly intended for the Paschal Lamb. At the large synagogue at Kefr Birim is a wreath with two lambs defaced in the same manner, and above this a moulding with a well executed scroll of vine leaves with bunches of grapes, and at one end a vase, perhaps the pot of manna. At Kerazeh, Meiron, and Irbid, the architrave mouldings of the doorposts have been carried round the heads of the doors. At Tel Hum, on one lintel is what appears to be the pot of manna, and on either side of it something like a reed, which may possibly be Aaron's rod. The sculpture on the main lintel is too much destroyed to distinguish its subject: on the top, cut in low relief, is a garland held up in several loops, over which is a flower. Above the centre door at Kefr Birim, there is a semicircular relieving arch, with several mouldings carried round its face. It is the only instance in which a doorway remains entire; but the others, judging from a curious slab found at Tel Hum, were in the same style, and it seems probable that the ornamented blocks uncovered at Kerazeh were situated immediately over the lintels of the doors in place of such arches.

At Kefr Birim there is a sort of porch with a sunk court in front of the entrance, and there appears to have been a similar one at Meiron. In the former synagogue, above the plain face of the enclosing wall, runs a small projecting moulding, corresponding in height and position with the abacus of the capitals of the porch; and as fragments identical in character were found at Tel Hum, Irbid, and Meiron, it seems to have been used in all the buildings. Above this moulding is an architrave of which there are also remains at Tel Hum and Meiron. It cannot be certainly determined what was above the architrave. At Tel Hum and Um el Amud a number of slabs with different floral ornaments were found, which appeared to have formed part of a frieze, and at the former several portions of a heavy cornice of peculiar shape, which may have run above the frieze; but the style of decoration of this synagogue is so different in most respects from that of the others that it would hardly be fair to take it as a general example; and no fragments of cornice were seen at any other place.

The floors of the synagogues are paved with slabs of white limestone. The arrangement of the columns is the same in all. The intercolumnar distances are excessively small; but whether this arose from want of constructive skill or an attempt to assimilate the buildings to something of the same kind in the Temple at Jerusalem, is difficult to say. There is one striking peculiarity to be noticed, that the two corner columns at the northern end invariably have their two exterior faces square like pillars, and the two interior ones formed by half-engaged columns.

At Tel Hum and Kerazeh they are The capitals are various. Corinthian, and the fillet round the neck has a pretty rope moulding. On the Tel Hum slab Ionic only are shown; at Irbid there are Corinthian and Ionic; and at El Jish, Kefr Birim, Meiron, Um el Amud, and Irbid, a peculiar description of capital, which seems to be of pure Jewish growth. At Tel Hum and Meiron a number of blocks of stone were found which evidently went from column to column, and received the rafters of the roof. Their faces have architrave mouldings, and the soffit is also ornamented; the rafters, judging by the spaces left for them, 81 in. deep by 2ft. wide, were of large size; but this would be necessary if the roof were flat and covered with earth. It may be objected that there is no large timber near; but the description given by Josephus of the fleets on the Lake shows that in his day there was no difficulty in procuring a good supply. This flat roof, with thick earthen cover, which seems also to have been adopted for the private houses at Kerazeh and other places in Palestine, is perhaps one reason for the closeness with which the columns are placed to each other. It is still used for nearly all modern Arab houses, and is the best adapted for keeping out the intense heat of the sun.

In the front of the large synagogue at Kefr Birim there are two small windows for lighting the interior; but whether there were others at the sides, and whether this was the usual mode of admitting light, there are not sufficient remains to show. A table is given at the end showing the interior dimensions, intercolumnar distances, heights of

columns, &c., in the different synagogues, for the sake of convenient comparison.

Nebartein.—Of this synagogue a portion of the western and southern walls and four pedestals remain in situ. Probably the surrounding wall might be traced by excavation, but men would have to be brought from a distance to do this. There are several shafts of columns, but no capitals. The lintel with the inscription lies half buried a few yards from the southern end.

El Jish.—There are here only fragments of columns, lintels, capitals, &c., built into the walls of the vineyards and houses; they are readily recognised as portions of a synagogue from the character of the mouldings and the presence of the peculiar pedestals of the corner columns of the northern end.

Large Synagogue, Kefr Birim.—This is the most perfect remain of the kind in Palestine. The southern face, with its three doors, though much shaken, is nearly entire. There is part of a porch, and by a small excavation the course of the surrounding wall was traced. Two of the columns at the northern end are in situ. The court in front of the entrance is sunk 15in. below the ground line, and is reached by three broad steps.

Small Synagogue, Kefr Birim.—The doorposts and lintel, on which is the Hebrew inscription, are still standing, and there are two pedestals in situ. By excavation the foundations of the main walls were uncovered. This building appears to have had only two rows of columns and one door. In the interior are remains of pedestals, columns, and capitals.

Meiron.—The site for this synagogue has been excavated in the eastern slope of Jebel Jurmuk, so that the western side and the floor are of solid rock. On the floor can be traced the position of the lines of columns by the raised step left to receive the pedestals. The centre door and one of the side ones are almost perfect. The mouldings on them are identical with those at Kefr Birim.

Um el Anud.—Here there is only one of the corner columns of the northern end in situ and part of the wall. Many fragments of a kind of frieze similar to those at Tel Hum were found, and a lintel on which are two rudely carved lions, but it is doubtful whether this formed part of the synagogue.

Irbid, 'Arabela.'—This building is on the right bank of Wady Hammam, on the side of the hill which slopes steeply down towards the north. The ground has been cut away to receive it, and as this prevented the construction of an entrance at the southern end in the usual way, it was placed in the eastern side, where portions of two doorways remain. The floor is sunk below the level of the ground, and is reached by a descent of three steps, two of which are continued round the northern end forming benches or seats. Several pedestals are in situ. This building has been at one time used as a mosque, the mihrab of which is perfect, and perhaps also as a church, if one may judge from the varied

style of the capitals, Ionic, Corinthian, and others of a very much later period being mixed up amidst the ruins in inextricable confusion.

Tel Hum, 'Capernaum.'-The whole of the surrounding wall of this synagogue was uncovered, and a number of pedestals were found in situ. It appears to have been rather better finished than the others. and to have been ornamented much more profusely. The capitals are of the Corinthian order, and there are remains of a heavy cornice and frieze. The exterior was decorated with pilasters, the only instance met with in this class of building. On the eastern side is a later addition. the walls of which have disappeared down to the plinth course. It consists of a rectangular building, having three entrances on the north side and one on the east, and the exterior was ornamented with pilasters similar to those on the synagogue. There is no doorway connecting the two buildings, and the walls meet with a straight joint, those of the later addition abutting on and hiding the corner pilasters of the original construction. During the excavations a portion of a curious slab was found. on which is represented the face of some large building, possibly a synagogue. The front, as here shown, has ten columns or pilasters with Ionic capitals set on a plinth course. Two of the pilasters form the jambs of the door, which has a circular head and ornament like those found entire at Kerazeh, and in fragments at Irbid and Tel Hum. The door is slightly open and is panelled. The entablature, which runs above the columns, is carried round the arch of the door. Mixed with the débris were found several remains of a much later date, which may have been added if the synagogue was ever used as a church. There are no traces of a mihrab or of its ever having been turned into a mosque.

Kerazeh, 'Chorazin.'—There is little left here except two pedestals in situ, a portion of the wall and fragments of capitals, &c., with some well-cut circular inches which appear to have gone over the doors. The remains of the building are entirely of black basalt of great hardness, and the labour of cutting the finely chiselled capitals and niches in this must have been extreme.

C. W. WILSON, Capt. R.E.

Note.—The peculiar construction of the Synagogues, and the inscriptions found in them, are shown in the series of Photographs taken for the Palestine Exploration Fund.

DIMENSIONS OF SYNAGOGUES IN GALILEE.

	Nebartein.	El Jish.	Large a gogue, Birim.	Byna- Kefr	Small gogue Birim,	Byna- Kefr	Meiron.	Um el Amud.	Irbid.	Tel Hum.	Kerazeh
Interior length	Ft. in. Not known	Ft. in. Not known	Ft. is		Ft. 48		Ft. in. 90 0	Ft. in. Not known	Ft. in. 57 3	Ft. in. 74 9	Ft. in. 74 6
Interior breadth	Not known	Not known	46 6	6	35	6	44 8	Not known	53 0	56 9	49 0
Thickness of wall	2 0	Not known	2 0)	2	9	2 8	Not known	7 2	1 11	4 0
Intercolumnar dis- tances	7 6	Not known	6 1	1	6	1	Not know	Not known	8 0	7 3	9 6
Height of pedestal with base of column		Not known	2 (£	2	81	2 6	2 1	1 2}	3 3 4	3 33
Height of shaft	Not known	Not known	11 9	9:1	9	71	Not knows	11 6	10 6	Not known	Not known
Height of capital with Abacus	Not known	Not known	1.5	5	1	31	1 5	1 0	Various	2 5	2 3
Height of Architrave	Not known	1 81	2 4	44	Not ki	own	2 4	Not known	Not known	3 01	Not known
Lower diameter of column		1 4	2 2	2 }	2	1	2 21	2 25	2 1	2 4	2 0
Upper diameter of column	Not known	Not known	2 3	3	2	n	2 0	Not known	1 10	2 0	1 10

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