Recent Biblical Archaeology.

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Agriculture.—This occupation, called 'husbandry' in the Old Testament, was the chief one of the Israelites. The old nomadic life, no doubt, continued to have its hold on many of them (cf. Jer 35), but the tilling of the soil, which was learned from the Canaanites (in addition to the art of war, Jg 3^2), became in the course of time an important element in daily life. Land was measured by yokes (1 S 14^{14}, Is 5^{10}) and valued according to the amount of seed it needed (Lv 27^{16}); places were identified by the crops growing on them (2 S 23^{11}, 1 Ch 11^{13}); and time was measured by harvests (Jth 2^{27}). Apart from certain lands which were claimed by the crown or belonged to the wealthy, the people had particular fields allotted to them for cultivation; and they developed their knowledge of tillage so well that, by the time of the monarchy, Solomon was able (cf. 1 K 5^{11}) to send to King Hiram every year no less than 20,000 *kor* of wheat (a *kor* = about 11 bushels) and 20,000 bath of oil (a *bath* = roughly 9 gallons).

1. **The Rains.**—The fertility of the soil in Palestine depends to a very large extent on the abundance and regularity of the rains. Fortunately, the territory west of the Jordan, as well as the immediately adjoining part of the Transjordan plateau, have a sufficient rainfall, owing to being exposed directly to the winds from the Mediterranean. It is most important, however, that the rain should come in its season, the 'early rain' at the end of summer and the 'latter rain' (or winter one) later on. The prayers of the Israelites and the promises of Jahweh are full of allusions to this requirement. Apart from the general Hebrew word for rain (*māṭār* or sometimes *géšem*), the term *be'itto* ('in its season') occurs frequently in the Old Testament in this connexion (cf. Lv 26^4, Dt 11^{14}, Jer 5^{24}, Ezk 34^{26}).

(1) **The Early Rain.**—This, called *yôreh* or *môreh* in the Old Testament, begins about the middle or end of October, after a summer period of dry, hot south-east wind, and prepares the ground which has been baked hard by the summer heat (over 70° Fahr. from June to October). In normal seasons, it immediately precedes the Feast of St. George at Lydda (the beginning of November), and no doubt this is not a mere coincidence of dates, for St. George under the mysterious title of *Al-Khidr* is regarded by the Arabs as an incarnation of Elijah, whose intervention ended the drought which desolated the land in the time of Omri (1 K 18). In the Israelite worship there was special ritual intended to call forth the early rain. Thus, in the Second Temple (Zerubbabel's, dedicated 516 B.C.), a golden ewer holding three *lôg* (= about 1½ litres) was filled with water from Siloam, and the priest poured this libation on the altar in the direction of the south-west, from which quarter the rain generally came (cf. the Mishna, *Sukkah*, iv. 9, 10). This was a rite which probably went back to very early times in Canaan.[1] Any delay in the early rain led to disastrous consequences, for the long summer drought, if continued beyond its proper limit, not only kept back the sowing but caused severe suffering to the sheep and cattle. 'Because of the ground which is chapt,' says Jeremiah (14^4), 'seeing that no rain hath been in the land, the plowmen are ashamed. . . . The wild asses stand on the bare heights, they pant like jackals, their eyes fail because there is no herbage.' One can understand how anxiously the Israelite husbandman watched for the first showers which would allow him to start his ploughing and sowing.

(2) **The Winter Rain.**—In the Old Testament this is usually known as *géšem*, pl. *gešâmim*. It falls rapidly and abundantly, and enables the seed to germinate. It comes at irregular intervals from the middle of December to the end of March, after the laborious period of preparation of the soil has been completed. It is particularly abundant in January and February, after which it diminishes in frequency and intensity, ending in occasional moderate showers. There is a later rain still, however, which comes normally in the month of April, after the ears of wheat have been formed. It bears the name of *malqôš* in the Old Testament (rendered *pluvia serotina* in the Vulgate), and is important as strengthening and maturing the crops (cf. Dt 11^{14}, Job 29^{23}, Jer 3^3 5^{24}, Hos 6^3, Zec 10^1, etc.). The Jerusalem Talmud (*Ta'anith*, iii. 3) prescribes solemn prayers for this rain, the last of the season, up to within a fortnight of Pentecost, after which date the sky is 'closed' until the autumn.

[1] Cf. Hooke, *The Origins of Early Semitic Ritual*, 42; Dalman, *Arbeit und Sitte in Palâstina*, I, 1, 133 ff.; *Rev. Bib.* (1924), 574 ff.

These 'early' and 'latter' rains fixed the agricultural life of the Israelites and divided up their year. A small limestone tablet (4¼ by 2¾ inches) discovered at Gezer, and containing seven lines in archaic Phœnician characters, dating probably from the eighth century B.C., is thought by many scholars to be an attempt by some one to group the months according to their agricultural importance, but the probability is that this 'almanac' is merely an exercise in writing emanating from some village scribe.

2. The Cereals.—There are numerous allusions to these in the Old Testament. The principal cereals used in bread-making were **barley** (*se'ôrah*, pl. *se'ôrim*) which was widely used as food (cf. Ru 3^{15}), especially among the poorer classes; **wheat** (*ḥiṭṭah*, pl. *ḥiṭṭim*), the supply of which usually exceeded the people's requirements—unlike the condition in Palestine at the present day—so that it was possible for considerable quantities to be exported (Ezk 27^{17}); several varieties of **spelt** (known under the generic name of *kussémeth*), which were usually grown on the borders of fields; and **millet** (*dôḳan*, Ezk 4^{9}), remains of which have been found at various sites such as Gezer (by Macalister) and Jericho (by Garstang). In addition, there is mention in Is 28^{25} of **sorghum** (*śôrah*), which is probably a species of millet and is referred to in the Panammu Inscription.[1]

To these cereals, properly so-called, must be added **flax** (Jos 2^{6}, Is 43^{17}, R.V.), which was early cultivated in Palestine and was said to be 'bolled' (Ex 9^{31}) when ready for gathering; also several vegetable products, such as **beans** (*pôl*, cf. 2 S 17^{28}, Ezk 4^{9}), as well as **lentils** (*'âdaśim*) which were in common use (cf. 2 S 17^{28} 23^{11}, Ezk 4^{9}) and for a meal of which Esau sold his birthright (Gn 25^{34}).

3. The Ploughing.—The seed was sometimes sown without any previous cultivation, but generally the ground was ploughed first, after it had been softened by the early rain. The plough was similar to the one in use throughout the whole of the Mediterranean world, and is figured on the bas-reliefs of Assyria and Egypt. It consisted simply of a strong beam, with a wooden ploughshare which was without a curved plate or mould-board to turn over the furrow. The share was pointed and strengthened with iron (Is 2^{4}), and it was these metallic pieces that the Israelites in the time of Samuel took to the Philistine smiths to be sharpened (1 S 13^{20}). Unlike the Babylonian one, the Palestine plough had only one 'stilt' to guide it (cf. Lk 9^{62}), leaving the other hand free to use the ox-goad (*malmēd*, Jg 3^{31}). It was generally drawn by a pair of oxen (cf. Am 6^{12}), but sometimes by asses (Is 30^{24} R.V., Dt 22^{10}). The yoke (*'ôl*), binding the pair together, was entirely of wood (called the 'bar' in Lv 26^{13} R.V.): the particular iron yoke with which the prophets threatened the people (cf. Jer 28^{13}, Dt 28^{48}) was only a metaphor to signify a particularly violent oppression. Under the Deuteronomic Law the Israelites were forbidden to plough with an ox and an ass together, owing to ancient taboos which the priests had adopted (Dt 22^{10}, cf. Lv 19^{19}).

4. The Sowing.—This followed immediately after the ploughing and extended from November to February according to the seed, pulse being generally sown first, barley a fortnight later, and wheat after another month. By careful farmers the seed was placed in the furrows in rows (Is 28^{25} R.V.), but often it was scattered broadcast out of the bag (cf. the New Testament Parable of the Sower), or dropped from a basket attached to the plough-tail. This last method, which is referred to in the Talmud and late Jewish literature, was probably an ancient one. Its invention, indeed, is credited to Abraham (*Book of Jubilees*, $11^{23ff.}$). A Babylonian intaglio depicts a plough of this nature with a basket fixed above, from which the seed, carefully watched by an assistant, descends through a long funnel or tube into the furrow behind the share. Harrows seem to have been unknown. In order to cover the seed, the plough was sometimes taken over the furrow a second time, or a branch or bush of thorns was dragged over the ground, this latter action being expressed in the Old Testament by the verb *śadad* (cf. Job 39^{10} 'harrow,' Is 28^{24} 'break the clods,' Hos 10^{11} 'break the clods').

5. The Harvest.—This began usually about the middle or end of April, but owing to the varied climatic conditions in Palestine the period was by no means uniform. According to the Hebrew legislation, it was supposed to cover about seven weeks (Lv 23^{15}, Dt 16^{9}), thus lasting till the middle of June. In the warmest districts, such as the Philistine plain, Sharon, and other parts, it generally finished before the end of May, while in mountainous regions it was two, three, or more weeks later. Frequently the harvest was spoiled by destructive elements beyond the husbandman's power to control, such as the violence of the winter rains, which 'excoriated' the soil, causing ravines here and there, or heavy showers of hail which laid low the young shoots, or swarms of locusts that settled down on the fields. These difficulties still face agriculturists in Palestine. Heavy invasions of locusts took place

[1] Cooke, *North Semitic Inscriptions*, No. 62, l. 6.

in 1928 and 1929, necessitating a 'Palestine Locust Service,' with a Government Entomologist in charge. In 1930 a more serious invasion in Southern Palestine had to be met by comprehensive measures. The campaign, which was successful, cost £27,000, however, and entailed the construction of a zinc sheet barrier stretching from the Dead Sea to the Mediterranean. To the list of the baleful influences in ancient times the Bible adds two of Nature's 'maladies' which affected the cereals in particular and which are generally mentioned together, namely, mildew (*yērâqôn*, from *yrk*, 'to grow pale') and blight (*šiddâfôn*, from *šādaf*, 'to scorch'), the latter being due to the premature drying-up of the shoots under persistent and intense south-east winds (the Ar. *sirocco*), as Gn 41[6] indicates. For all these scourges cf. Dt 28[22], 1 K 8[37] (=2 Ch 6[28]), Am 4[9], Hag 2[17], etc. The instrument in use for cutting the grain was a slightly curved sickle (*maggâl*, Jer 50[16], Jl 3[13]; *ḥermêš* in Deuteronomy, cf. 16[9] 23[25]). In primitive times it was made of flint, with a well serrated blade, and was socketed in a curved wooden handle. Large numbers of such implements have been found in Palestinian sites. An analysis of 2,400 worked flints discovered by Garstang at Jericho and dating from about 3000 B.C. shows that sickle blades numbered 243, and were in preponderance over all other finished products. This form of sickle, like all flint implements, maintained itself till well into the Iron Age. The bronze or iron form, also curved, which ultimately superseded it, had the blade either fixed into the handle with rivets or simply socketed. The straw was cut about a foot or so below the ears (Job 24[24]), the reaper left the grain behind him in handfuls (Jer 9[22]), and the binder tied it up in sheaves (Gn 37[7]). The corners of the fields and any stray ears were abandoned to the gleaners, especially the poor and the strangers (cf. Lv 19[9] 23[22], Dt 24[19]), and the sheep were then pastured among the stubble and wild grass.

Ezion-geber (*Tell el-Kheleifeh*).

Professor Glueck has given us further valuable information about the great smelter-refinery built by Solomon at this spot on the north shore of the Gulf of Aqabah. From his accounts it must have been the greatest armament and industrial plant of its kind in antiquity, belching forth huge clouds of smoke by day and pillars of fire by night. Some facts interesting to the Biblical student may be mentioned:

(1) **The Corvée.**—There is corroboration of the idea previously expressed that these huge foundry works were manned by slave labour levied on the people (Old Testament *mas*, wrongly translated 'tribute,' except in Est 10[1]; cf. Jos 16[10] 17[13], Jg 1[28], 2 S 20[24], 1 K 9[21], 2 Ch 8[8], etc., cf. Gn 49[15]). It is known that much of Solomon's industry was accomplished in this way, and special overseers for such labourers were appointed by royal warrant (cf. 1 K 4[6], 11[28] R.V.). He not only had a forced system of levying provisions for the maintenance of his large royal establishment, but employed slave-gangs for the execution of his vast building and industrial schemes (1 K 5[13ff.] 9[15]). Probably, as Glueck suggests, the fumes and smoke from the plant at this ancient Pittsburg, coupled with the severity of the conditions (such as severe uninterrupted sand-storms), would have made life intolerable to the free-born, and the rate of mortality must have been enormous. Officers, merchants, sailors, and others no doubt lived some distance away from the walled area, but the slave-labourers must have been confined within or close to the works (which occupied little more than an acre and a half), under a troop of soldiers who controlled them and also guarded the buildings (which acted as a fortress at the main cross-roads). This hateful *mas*, which the Hebrews had known only too well in Egypt, helped to pave the way for the downfall of Solomon's house in the time of Rehoboam (1 K 12[4. 18]). It had been used earlier by David (cf. 2 S 20[24], 'Adoram had charge of the *mas*'), but the odious practice was more extensively adopted by Solomon, owing perhaps to his Egyptian connexions.

(2) **Israelite Walls.**—Some time after Ezion-geber had been destroyed by Shishak about 940 B.C. (cf. 1 K 14[25]), it was extensively rebuilt, probably by Jehoshaphat of Judah, who reigned about 878–854 B.C., and who made an abortive attempt to revive the sea-trade with Arabia. This new fortified area was enclosed by walls of enormous thickness and height, built with a new and much stronger type of bricks. The inner wall was nine feet thick at the offsets, and was originally some twenty-five feet high, with a strong glacis, and towers at the corners, while the outer one was about three feet thick and ten feet high, also with a glacis. Between the two walls, which were nine feet apart, ran a dry moat, with a clay and mud-brick floor. Probably these formidable walls were necessary on account of the battering-ram, which by this time was becoming more scientifically constructed, while other powerful arts of war for attacking fortresses were also coming into existence.

(3) **Ostraka.**—Several Aramaic ostraka belonging to the fifth-fourth centuries have been found; but

of more interest to Biblical scholars is a beautiful signet ring, which has a seal enclosed in a copper casing. The seal has incised on it in clear, ancient Phœnician characters the inscription LYTM, 'belonging to Jotham.' It is quite probable that the individual referred to was Jotham, king of Judah (*c.* 740–736 B.C.), whose dominion extended to the Gulf of Aqabah, and during whose reign the great prophets Hosea, Isaiah, and Micah prophesied. 'It appears to me,' says Albright, 'that the identification is almost certain.' It was at the end of this king's reign, in 735 B.C., that the Edomites, who had been struggling for two centuries to take possession of Ezion-geber (known by that time as Elath), succeeded in driving the Judæans out, so that it was never again ruled by a Judæan king.

(4) **Store-room.**—Among several beautiful jars discovered in a small store belonging to the Edomite settlement, was one full of resin, as sweet-smelling to-day as it was 2400 years ago. When the jar had been left for a while at a tilted angle in the sun the resin began to melt and overflow the mouth of the jar. Probably this store of resin was used in the caulking of ships, or it may have been needed for some of the numerous manufacturing processes carried on.

(5) **Far Trading.**—In the later buildings (the fourth town), dating from about 500-400 B.C., the excavators have found numerous black-glazed sherds of Greek pottery. These had probably belonged to jars containing wine and other products, which had apparently been conveyed by ship from Athens to Gaza and Ascalon, and then carried by camel to this trading centre in the Red Sea, to be re-exported no doubt from there to Arabia. In return the incense and spices of Arabia were transported *viâ* the Gulf of Aqabah to Greece. The discovery affords another instance of the world-wide trade carried on centuries before the Christian era.

Guilds of Workmen.

In a recent number (December 1940) of the *Bulletin of the American Schools* it is suggested by I. Mendelsohn that craftsmen's and merchants' guilds, *i.e.* associations organized for mutual benefit, existed among the Israelites in Old Testament times, long before such a system could have reached them from the Western world. There is good evidence that such guilds or corporations were well developed in Babylonia, even before the time of Ḥammurabi, but it is not known to many scholars perhaps (and Mendelsohn makes no reference to it) that the Ras Shamra tablets indicate the existence of such organized groups in Syria and Palestine as far back as the fifteenth century B.C., and there may thus be nothing strange in the Israelites developing the same economic and social system. In the Ras Shamra tablets the names of trades and crafts are particularly numerous, and they are generally grouped in special lists, implying that each was an associated body. Among a large number the following may be cited as examples, and in almost every case the names of the trades correspond to Old Testament words:

Pslm, 'stone-cutters,' 'sculptors' (cf. *pasal*, Ex $34^{1.\ 4}$, Dt $10^{1.\ 3}$, etc.).
Nqdm, 'sheep-farmers' (cf. *noqedim*, 2 K 3^{4}, Am 1^{1}, etc.).
Nskm, 'weavers' (cf. *nasak*, Is 25^{7}).
Śrm, 'singers' (cf. *sharim*, 2 S 19^{35}, 1 K 10^{12}, etc.).
Mkrm, 'merchants' (cf. *mokēr*, Lv 25^{16}, Neh $13^{15.\ 16}$, etc.).
Yṣrm, 'potters' (cf. *yôṣerim*, Is 41^{25}, 1 Ch 4^{23}, etc.).
Kbsm, 'fullers' (cf. *kôbēs*, 2 K 18^{17}, Mal 3^{2}, etc.).
Yqšm, 'fowlers' (cf. *yôqeshim*, Ps 124^{7}).
Shgrm, 'porters' (cf. *shô'arim*, 2 K 7^{11}, Ezr 2^{42}, etc.).
Mddm, 'measurers' (cf. *mādad*, Ezk 45^{3} 47^{18}, etc.).

If, as seems likely,[1] such lists in the Ras Shamra texts indicate corporate organizations of some kind, we need not be surprised at the existence of similar bodies among the Israelites. Probably, in both cases, each body had a trade monopoly in its particular town or quarter of the town, and could prevent any newcomer from settling down in it or creating opposition. We are reminded of the tumult at Ephesus, though many centuries later, which was organized against Paul by the associated tradesmen (silversmiths) engaged in the manufacture of shrines, who were led by Demetrius, one of the chief employers of labour (Ac 19^{24}). Under the Israelites, with a similar formation of guilds, special streets or localities in a town were sometimes allotted to each guild. Thus, we find that Jerusalem had its Bakers' Street (Jer 37^{21}), its Fullers' Field (Is 7^{3}), and its Cheesemakers' Valley (the Tyropœan, see Josephus, *Wars*, v. 4, 1). In Neh $3^{8.\ 31}$ we find mention of guilds of goldsmiths (cf. Is 46^{6}) and 'apothecaries,' *i.e.* perfumers (see R.V.m.), perhaps of a hereditary nature, for certain

[1] Cf. *Glecs: Groupe linguistique d'études chamito-sémitiques*, iii. 62 ff.

trades often ran then, as now, in particular families; and in 1 Ch $4^{21.\ 23}$ guilds of weavers and potters (cf. La 4^{2}) seem to be referred to, for 'families of weavers' probably signifies 'guild of weavers.'

All labour was regarded as honourable, and to neglect to teach one's son some handicraft was tantamount to bringing him up to robbery. Hence, in the lapse of the centuries, especially in post-Biblical times, associations of craftsmen acquired powerful influence and were recognized as established entities, many of them with their own religious and social institutions.

Contributions and Comments.

The Enigma of the Swords, St. Luke xxii. 38.

A FURTHER line of thought is opened up by a perusal of the words Ἱκανον ἐστιν, Lk 22^{38}. A.V. and R.V. render this 'It is enough,' whilst Dr. Moffatt says, 'Enough, enough'; Dr. Moffatt certainly fits in better with the context.

Now Liddell and Scott gives as another meaning for Ἱκανον, 'Large or long enough,' thus Ἱκανον χρονον means 'A long time.' Seeing that the translation 'It is enough' has little meaning in its context, may it not be that our Lord was saying, 'They are large enough' or perhaps, 'long enough.'

This supports the view that the μαχαιραι were the fishermen's knives, and it also supports Mr. Finlayson's contention in THE EXPOSITORY TIMES for September 1939, that some kind of resistance was being contemplated.

The translation of 'They are' for ἐστι would be fully justified if μαχαιρα were neuter, but as it is feminine, we may take it that Ἱκανον ἐστιν is spoken in an impersonal manner, or it may be that Jesus was looking at one of the knives, in which case, 'That is large enough' would be correct. Taking this interpretation of Ἱκανον ἐστιν our Lord may have been saying, 'Fishermen's knives are large enough for all the fighting you need to do,' or, on the other hand, the words may have been in the form of a question, in which case the meaning would be, 'Are those knives large enough (or powerful enough) for the fighting which you contemplate?'

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The Word ὡσαννά in Matthew xxi. 9.

MR. COGGAN'S note, in THE EXPOSITORY TIMES for November, on the song of the multitude at the Triumphal Entry, makes one wonder again why commentators refuse to translate the words literally. הוֹשִׁיעָ takes the Dative in late Hebrew, *e.g.* Ps 72^{4} 116^{6}: *a fortiori* must the Dative follow in Aramaic. Why then hesitate to render the words,

'Oh save the son of David, . . .
Oh save (him), Oh God.'

Dalman (*Words of Jesus*, Eng. Vers., p. 221) says, 'One might conceivably hold that ἐν τοῖς ὑψίστοις had been a substitute for the name of God, which, from the tenor of Ps 118^{25}, ought properly to have been expressed here.' 'But,' he objects, 'deliverance ought to have come "*from* the highest"' (italics mine). It is true that in the Aramaic parallels ד seems to be regularly inserted: *e.g.* מִימְרָא דְלַעֵיל (I quote from Dalman). But the omission of ὁ before ἐν τοῖς ὑψίστοις scarcely seems a fatal objection to the rendering suggested here.

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Entre Nous.

The Apostles' Creed.

Many will have seen Dr. A. B. Macaulay's letter in *The Times* of 17th February where he asked whether the Archbishops could inform us 'where a clear and compendius statement of the Christian faith is to be found? . . . that he may run that readeth it.' Professor Macaulay complains that the Apostles' Creed with its ambiguous clauses and glaring omissions is inadequate to meet modern needs. The Editor of *World Dominion* (May-June) invited Dr. Major, Principal Micklem, Mr. Hugh Redwood, and Dr. Macaulay himself to attempt a formula of Christian belief and we have an interesting symposium in this number. We would take the opportunity of saying that *World Dominion*, though unfortunately smaller in size, is very attractive and modern in its new format.

Dr. Major suggests two modern substitutes for the Apostles' Creed. The first, set to music in *Songs of Praise* (433), consists of extracts from the