

MAPS AND PLANS OF BIBLE LANDS

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THE author of this paper is well qualified to deal with a subject of great interest to Bible students: he did post-graduate research in Jerusalem on the cities of Roman Palestine, and after serving the Ministry of Defence for some time as Assistant Map Research Officer under the Directorate of Military Survey, Tolworth, is now Research Assistant in the Geography of the Middle East in the University of Durham.

IT is a very frequent occurrence for the serious Bible student to come across a place-name or route in Scripture with little idea as to where it is or its relation to other places. Much may be known by archaeology or ancient records about some of the towns mentioned in the Bible, but for a really true appreciation of the wanderings of patriarchs or prophets or of a military campaign or of the journeys of St. Paul good maps are the necessary tool of the Bible scholar.

One of the great advantages of the 'civilized' nations of the world is in the possession of good maps, but we are often tempted to take them for granted and assume that other countries must be equally blessed. It came as a bit of a shock to Biblical scholars of a century ago to discover that in fact the Holy Land was not covered with Ordnance Survey maps and the greater part of it was not covered by any large-scale topographical map at all. It is the purpose of this article to outline for the student the maps which have since then been produced and which are easily available to the general public.

Although it is not intended to go into the survey history of the eastern Mediterranean a brief resumé of mapping development might be useful. Many ancient maps exist of the Bible lands, such as the Madaba Mosaic and the Cambrai map. Most of them were made by pilgrims and of course have not the accuracy of modern maps, but they are useful in constructing the country as it was in the past. The first real attempt to undertake any survey work at all in the region was by Napoleon's military engineers at the beginning of the last century, but this was confined to certain parts of Egypt and Palestine. In Palestine, the first major work was the surveys of Sir C. W. Wilson who in 1864-5 surveyed Jerusalem at a scale of 1:2,500 and the surrounding countryside at 1:10,000, together

with several plans of important sites. He followed this up with more general survey work, particularly in Syria and eventually the central part of Palestine was covered by a north-south belt of maps at the 1 inch to the mile scale (1: 63,360). Other plans and drawings of important sites and churches were completed.¹ In the years from 1867 to 1870 useful work was done by Capt. Warren in Palestine and by Wilson in Sinai.

The first systematic survey work in Palestine began in 1871 when the Palestine Exploration Fund decided to send a team to the Holy Land to survey the area west of the Jordan. At first the expedition was placed under Capt. R. W. Stewart but after his unfortunate illness, C. R. Conder took over the command. The survey was finally completed in September, 1877, after very thorough work and became the basis of all research work since in view of the detail and comprehensiveness of both the memoirs and the maps. From the cartographic angle, the main product of this survey was a 1 inch to the mile map published in 1880 and followed by an edition at a scale of 1: 168,960 in 1882. The success of the survey of the western part of Palestine prompted the Palestine Exploration Fund to undertake the survey of Eastern Palestine which was originally to have been an American effort. Unfortunately, because of political troubles, only 500 sq. miles were surveyed in 1881-2 before work was stopped, but it still proved useful and surveying work by Dr. G. Schumacher in 1885 in the Hauran area supplemented Conder's work.²

Other survey work was undertaken after Conder, before the close of the century, but the next important period was just before and during the First World War. A survey was begun by the Palestine Exploration Fund, under Newcombe and Greig, of the Negev and southern Palestine and extending into the Arabah which had previously been surveyed by Hull and Kitchener in 1883-4. The war hindered the production of maps, but did prompt the Turks to extend their national survey under Mahomet Chewki Pacha into Palestine. There were also certain individual efforts by people such as T. E. Lawrence.

After the War, the lands of the Near East found themselves under European administration and government sponsored mapping agencies began to produce maps of the Bible lands. In Syria

¹ C. M. Watson, *50 Years Work in the Holy Land, 1865-1915* (London, 1915), ch. iii.

² For Conder's account see his works: *Tent Work in Palestine* (1879) and *Heth and Moab* (1883).

and Lebanon, survey work was begun by the French in 1920 and completed by 1937 to remove reliance on Turkish work and the available maps of this region are still based on this French work. In Palestine, the work was placed under the survey of Palestine which executed a fresh triangulation and produced maps at various scales. Later the area east of the Jordan came under the jurisdiction of the Department of Lands and Surveys, Transjordan. Since the last war, these agencies have been taken over by the Survey of Israel and the Department of Lands and Surveys, Jordan. In Egypt at this time, good maps were being produced of the Nile valley and delta by the Survey of Egypt.

Thus the Bible student looking for maps of the lands covered by Scripture is confronted with a variety of scales, styles and agencies not to mention the numerous editions which are constantly being issued. To avoid confusion and aid selection, it is best to divide the mapping into three categories:—

- i. General maps, covering a major area in a few sheets.
- ii. Large scale maps covering a small area in great detail.
- iii. Town plans.

The list below is by no means exhaustive, but mention has been made of most of the best maps which are generally available to the general public.

1. *General Maps*

For the scholar requiring maps to show ancient sites at a glance or routes and tribal boundaries, there are several maps published to satisfy him. Palestine in Old Testament times is shown at the scale of 1:500,000 in a map published by the Survey of Israel and there is also a map of Roman Palestine compiled by Professor M. Avi Yonah which shows settlements and roads. The Survey of Israel also publish a map of Palestine under the Crusades at 1:350,000. For general Bible study the whole land is covered at a scale of 1:250,000 (4 miles to the inch) by two series. The western part of Palestine is very well covered by the Survey of Israel map of 'Israel' in two sheets. The map shows heights by layer-shading and there are two types of hillshading available for those who like maps with visual effects. The map is of considerable value as it shows settlement ancient and modern with a list of settlements for easy reference. The Department of Lands and Surveys, Jordan, produces a 3-sheet map series which covers the land east of the Jordan at the same scale. These sheets are less attractive than the Israeli ones but probably just as accurate. A fine geological version of this series also exists and the Survey of Israel publish a geological map of Israel at 1:500,000. A good map is also pub-

lished by the Department of Lands and Surveys, Jordan, with archaeological detail of all ages. For more general study, this department publish a map at 1: 500,000 covering both sides of the Jordan. All these maps are ideal for the Bible student being detailed but of easily useable size.

2. *Large Scale Maps*

The second category of maps is of those at larger scales, which therefore include much more detail. They are essential for any detailed study of military campaigns, ancient sites and boundaries. The student's needs will determine the sort of map he needs. All of Palestine to the west of the Hejaz Railway is covered by maps at a 1: 100,000 scale and for most of the Negev this is the best scale available. Old Testament scholars in need of maps of Syria and Egypt will also find satisfactory cover of most of the area they are interested in, at this scale or larger. In Palestine, most of the country north of Beersheba is also covered at a scale of 1: 50,000 (rather more detailed than the Ordnance Survey 1 inch maps) and most is also mapped at 1: 25,000 or 1: 20,000 (similar to the English 2½ inch maps).

For the student needing 1: 100,000 maps, there are three or four main series available. The Survey of Palestine published a good series surveyed during the British mandate days and this series was kept revised. The sheets are contoured and show much detail of settlement and roads and are also well gridded. The presence of the grid is most useful because it enables the scholar to keep a definite reference to any site he may be interested in. Much later detail is printed in Hebrew and the recent series at this scale—similar in type to the Survey of Palestine maps—which are published by the Survey of Israel, are in Hebrew or English versions. For the east of the Jordan, there is a good series of maps of the Hashemite Kingdom of Jordan, published by the Department of Lands and Surveys. The sheets are in Arabic but are good. They were compiled in 1950 and are contoured and show much detail including ancient ruins and vegetation also. Most of Jordan west of 36° E. is covered by these sheets. The maps at this scale are excellent for more detailed study because they show a fairly large area at one glance yet give detail of any one site.

For certain areas even more detailed maps might be needed, say to examine the site of Jerusalem or Shechem or Caesarea. A good old series, available in many libraries, is the one-inch Palestine Exploration Fund series, first published in 1880 and reprinted in 1917. It is good (particularly if used with the memoirs), but is dated and less accurate than modern sheets. Israel and Jordan

have 1:50,000 maps available, but perhaps the best series are those at 1:25,000 and 1:20,000 scales. The Survey of Palestine published maps at both these scales, covering the land from Hebron northwards. The 1:20,000 series is the better of the two, and shows contours, communications and all settlements. For the study of the site of a town this series is by far the best. The 1:25,000 maps were produced from the above series and are largely monochrome and so less attractive and more difficult to read. Coloured maps at this scale are however available for the Tyre area and the northern Jordan valley. A large part of Jordan east of the river is covered by maps at 1:25,000 which show contours, settlements and roads and tracks and is generally both useful and clear to read.

Mention might also be made of maps of neighbouring countries. The Survey of Egypt published a good 1:100,000 series covering the delta area, Suez, and the Nile as far as the Sudanese border and also of El Kharga oasis. A post-war series based on 1943-8 survey in English and Arabic covers the delta and a few other places. In Syria and Lebanon maps are available at the same scale in French work, but little later mapping is available for the general public. For New Testament students interested in Asia Minor, the Turkish 1:200,000 series is probably the best for general use.

3. *Town Plans*

The third and final category is the town plan. It is easy for the Bible student to read of these old cities and perhaps have a mental image of them, but more accurate help is available through town plans. Most of the large towns in the Mediterranean world are covered by plans of some sort by either the national agency or private concerns. Thus Jerusalem can be studied through plans of Israeli, Jordanian or British origin of both private/tourist type or official plans. From the mandate days two good plans of Jerusalem were produced which would be of special interest to the Bible student. Both are at a scale of 1:25,000, one of the Old City and another of the environs. A plan also is published of the Holy Places at 1:10,000 and the Survey of Israel published a good general plan of the city at that scale. More detailed plans are issued at 1:5,000 by the Survey of Palestine and at 1:2,500 by the Department of Lands and Surveys, Jordan. This latter sheet is probably the best being contoured and shows the Old City in much useful detail.

Most other Palestinian towns have plans available. Acre has a street plan by the Survey of Israel and the Israel Tourist Corporation put out a pictorial plan of the town. Beersheba is covered by a Survey of Israel sheet in Hebrew at 1:10,000 and also by a

Survey of Egypt map at 1:12,000. Bethlehem has a 1:10,000 plan and one at 1:5,000 published by the Survey of Palestine. Cadastral plans are available of Gaza and there is a 1:2,500 plan by the Survey of Palestine. Haifa is covered by a 1:10,000 plan by the Survey of Israel. Hebron is covered by a Survey of Palestine plan and so is Jericho. Nablus also has a plan of Survey of Palestine vintage while Tiberias is covered by a Hebrew plan at 1:10,000 and also by a Survey of Palestine plan. Many other of the towns of Palestine, ancient or modern, are covered by plans. Some of the Survey of Palestine plans are not so easily obtainable, but the Jordanian and Israeli agencies are bringing out revisions and new sheets.

Other cities outside Palestine have plans. Damascus, for example, is covered with French mandate plans and one of the town in the Roman era put out by the Antiquities Department. Cairo and Alexandria are covered by plans, most of them pre-war and many of the old cities of Asia Minor and Greece are covered by plans. For instance good plans exist of Constantinople (Istanbul) and Smyrna (Izmir).

Finally, mention might be made of the Atlas of Israel, a huge volume with much information on the land past and present including town plans and studies of past kingdoms and eras. It is, however, too large and expensive for the average individual.

The survey of maps given above is by no means exhaustive. No mention has been made of British military mapping (G.S.G.S. and D.M.S.) because they are not generally available and are only revisions and reprints of Survey of Palestine mapping. The more recent maps are best both because they give more up-to-date information (and the modern country is no less interesting than the old) and cartographic technique is improving all the time. The above maps are all fairly easily available and should give the Bible student enough information on which to choose.

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