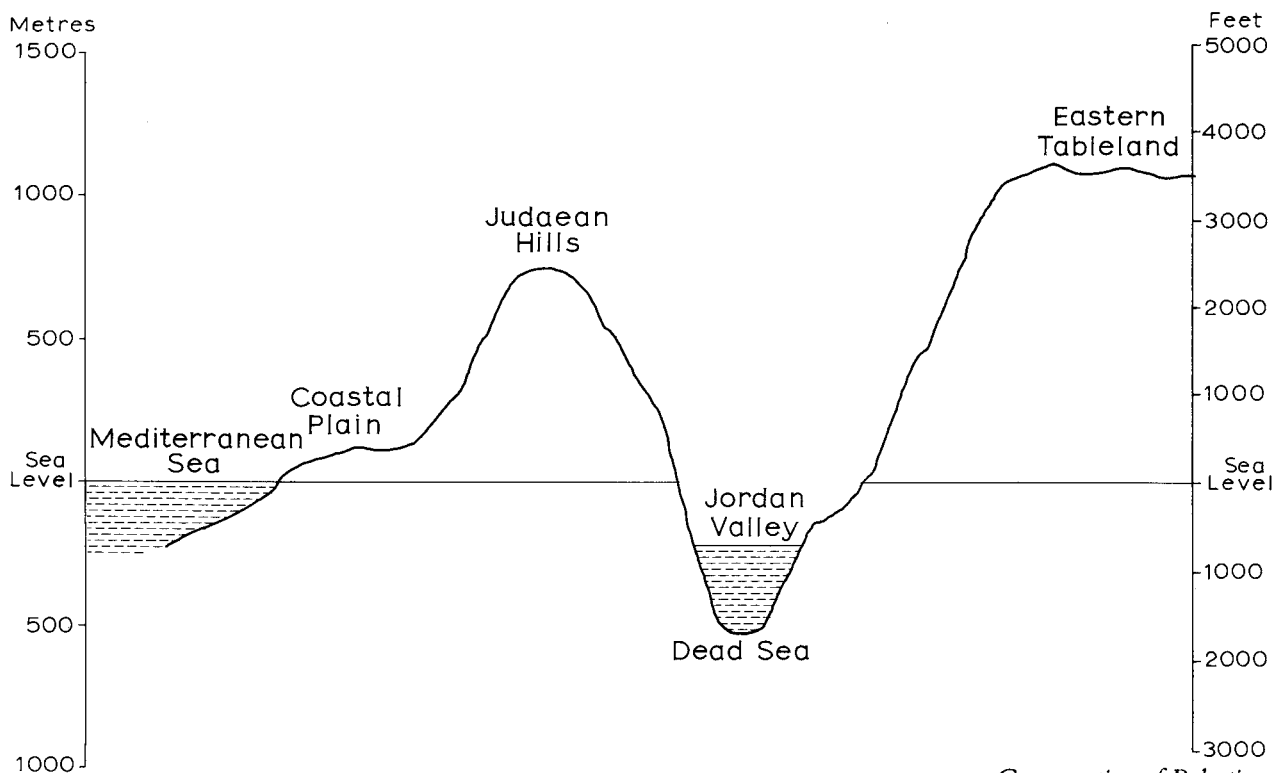


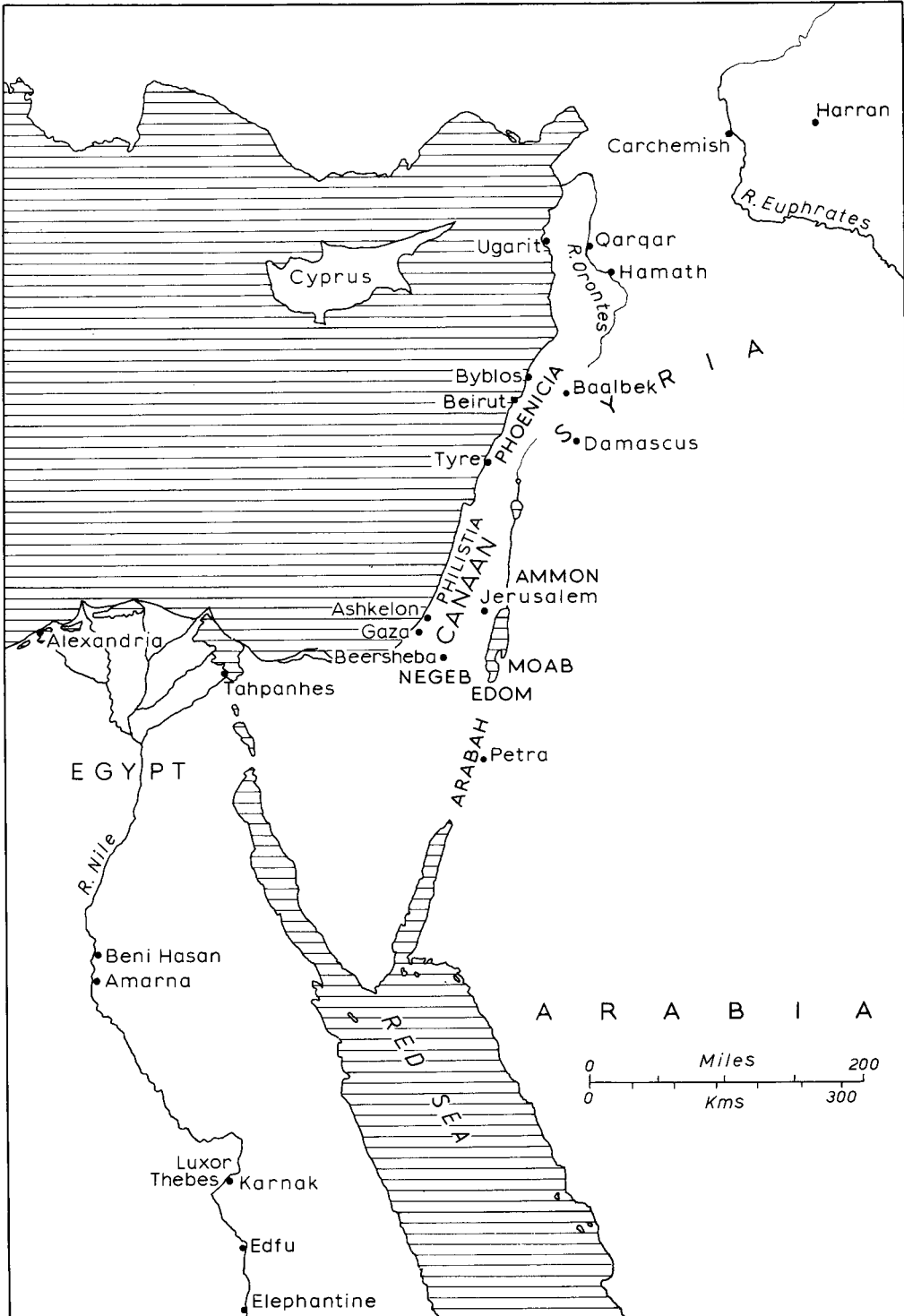
1 GEOGRAPHICAL

Palestine (map 1) is a rectangle of land about 240 kilometres (150 miles) long and about 120 kilometres (75 miles) wide, bounded on the west by the Mediterranean Sea and on the east and south by desert and hill country. Diagram 2 gives a general impression of the heights and depths in an east–west cross-section of this ‘land of mountains and valleys’ (Deut. 11: 11). At different latitudes these features vary, of course, but it is not too far from the truth to say that strips of SEA – PLAIN – HILL – VALLEY – TABLELAND run north–south for most of the length of Palestine. There are, however, some important breaks in the ranges of hills to the east and west of the Jordan Valley: to the east, the gorges formed by the rivers Jabbok and Arnon, and to the west, the Vale of Jezreel (map 1).

The vertical and horizontal scales in the diagram are widely different. If the vertical scale agreed with the horizontal scale, the heights and depths would scarcely be visible. One effect of this scale difference is to exaggerate enormously the hill slopes, and this must be taken into account when consulting the diagram.

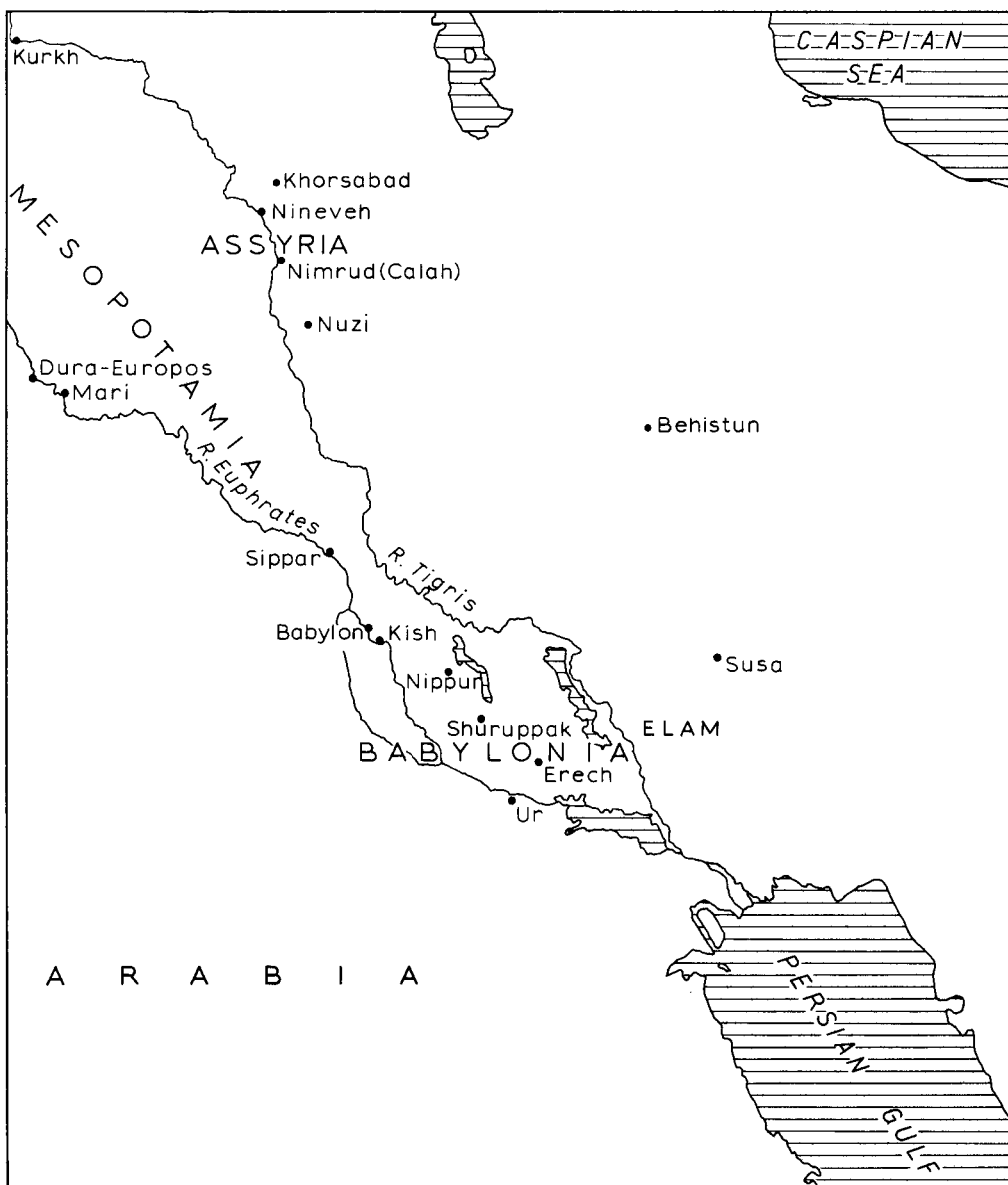


2 Cross-section of Palestine



3 Lands of the Old Testament

Palestine is remarkably situated in a central position in the Near East; with Syria, Assyria, Babylon and Persia to the north and east, and Egypt, Greece and Rome to the south and west. Maps 3 and 4 show the position of Palestine with respect to the lands that played a prominent part in the history of the period covered by the Old Testament.



4 *Lands of the Old Testament*

2 ARCHAEOLOGICAL

BIBLICAL ARCHAEOLOGY

The word 'archaeology' is derived from two Greek words, the first of which, *arche*, means 'beginning' and the second of which, *logia*, means 'a branch of knowledge'. By derivation, therefore, archaeology is the branch of knowledge that deals with beginnings or origins; and archaeologists are people who try to reach back in time to discover the original records of civilizations, communities, buildings, documents, works of art, or other objects of human interest. It is not always possible to reach back so far, however, and it is better to define archaeology in more realistic terms and to say that it is the study of the remains that people of earlier ages have left behind. Biblical archaeology is a special branch of the subject, concerned only with the remains of those people of earlier ages who are associated with the Bible.

Contrary to popular opinion, archaeology is not treasure-hunting, and the aim of biblical archaeology is not to prove the truth of the Bible. Before the subject was properly understood, explorers who had the necessary time and money visited those parts of the world where the remains of ancient civilizations were to be found, and employed native workmen to dig for archaeological treasure. The results of their random digging and their tomb-plundering are exhibited in the museums of the world. Such expeditions were often financed by wealthy benefactors who were concerned to demonstrate the literal truth of the Bible, and any discovery that seemed to confirm the accuracy of a text was hailed with delight, and any discovery that did not was often quietly ignored. A second glance at the previous paragraph will show how far such people were from achieving the real object of archaeology.

Biblical archaeology, then, does not set out to show that the Bible is true, but it does contribute enormously to our understanding of the Bible, and to our knowledge of the background against which it was written. Sometimes it supports the biblical record (for example, the patriarchal period, pp. 30ff.); at other times it does not (for example, the destruction of the walls of Jericho, pp. 55f.). To accept evidence that confirms one's own ideas and to ignore that which does not is unscientific to say the least.

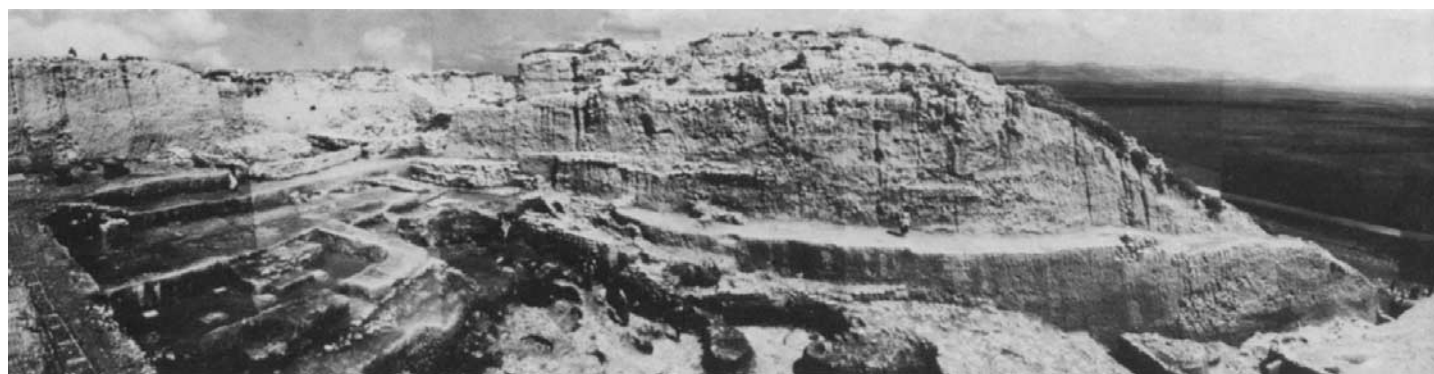
Some of the remains that people of earlier ages have left behind are found above the ground; other remains are found only by digging for them below the ground. Material of the latter kind has sometimes been deliberately deposited underground; for example, in the tombs found in ancient burial places, but more often it is there by an accident of history that must now be described.

EXCAVATING A TELL

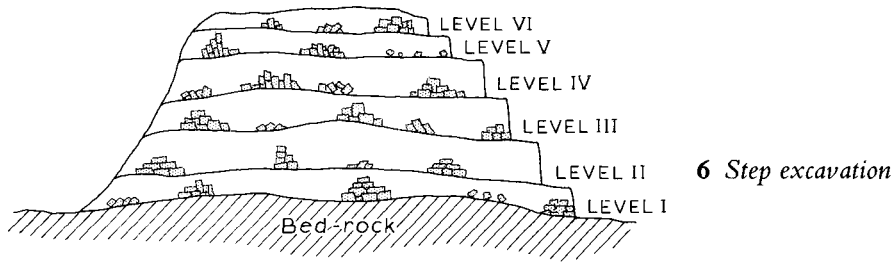
Ancient habitations were frequently visited by war, fire, famine, or pestilence, and in such circumstances the inhabitants fled, often in great haste, leaving behind many of their possessions. In course of time the houses and other buildings fell into ruins, and the debris became covered with rain-carried silt brought down from a neighbouring hill, by ash from a nearby volcano, or by wind-blown sand or light soil. If the site was a valuable one a new habitation was built, often several centuries later, on the covered ruins of the earlier one, and this in turn was deserted, covered, and built on again. In some cases the process was repeated many times, resulting in the formation of a mound called a tell (from the Arabic word for a hill). At Megiddo, for example (map 1), twenty levels of human occupation have been uncovered, the lowest, and therefore the earliest, of them dated soon after 5000 B.C. (5). A city tell is distinguished from a natural hill by its comparatively flat top and the peculiar slope of its sides (78), and these features are most easily seen nowadays by photography from the air.

Several methods of excavating a tell are possible. Because they all attempt to expose the layers or strata of the mound the operation is known as stratigraphy. The most obvious method is to remove successive layers until the lowest layer is reached, like cutting slices horizontally from a loaf of bread. Slicing a tell, however, is a laborious and expensive operation, and on that account it is very rarely used today. The top four layers of Megiddo were completely removed by this method, but the work was stopped by the outbreak of World War II and it has not since been resumed on such a scale.

As early as 1890, W. Flinders Petrie used a more economical and less laborious technique. He excavated Tell el-Hesi, a mound about 36 metres (118 feet) high, situated about 11 kilometres (7 miles) south-west of Lachish (map 1), by cutting



5 *Excavation levels at Megiddo*



a series of steps in the side of the hill, each step corresponding to a level of occupation. This diagram (6) illustrates the method. Six layers of covered ruins are shown, the earliest of them resting on the bed-rock below which no building can have taken place. The steps that were dug out are seen on the right of the diagram, but it must not be assumed that layers are always as undisturbed as those shown diagrammatically here. In the excavation of a tell the pottery and other objects found in each layer must be kept separately and carefully labelled. Petrie developed a method of distinguishing and dating the pottery he found at Tell el-Hesi and he was thus able to assign a date to each level of occupation.

Another method of stratigraphy is to cut a trench across the top of the tell to the depth of the latest level of occupation, and then to deepen the trench until



7 Trench excavation at Jericho

the next level is reached, and to continue the process until bed-rock is reached. Jericho (map 1) has been partly excavated by this means (7). A still more economical method is to dig pits at various points on the tell, exposing levels of



8 *Pit excavation at Jericho*

occupation in a more restricted way than even in the trench method. One such pit can be seen in the foreground of this photograph of the tell at Jericho (8). All stratigraphy, whether by the slice, the step, the trench, or the pit method, has the same object: namely, to expose cross-sections of a city or other habitation from its latest to its earliest occupation.

ANCIENT WRITING MATERIALS

The search for buildings and other objects related to the social, religious and cultural life of the people of Bible times is not the only concern of biblical archaeologists. They also hope to find written records that will tell them something of the history, literature and life of earlier ages in the lands of the Bible. Records of this kind are sometimes carved in stone (for example, 34), or written with a fine

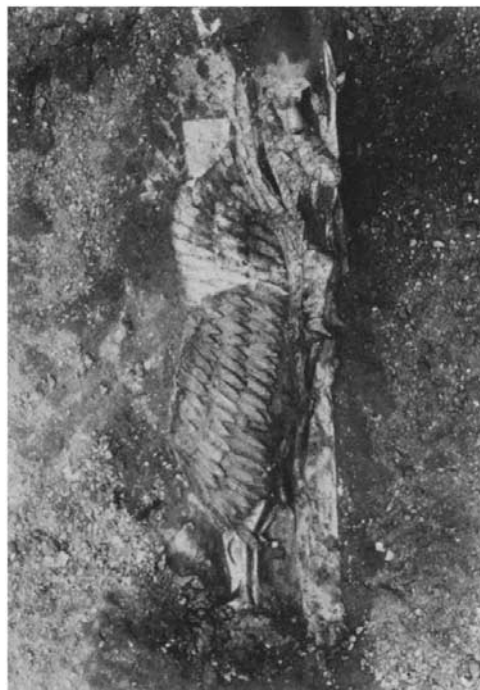
brush on bits of broken pottery (for example, **90**); in which case they have survived. At other times the records were written on animal skins, parchment, or papyrus; in which case they are more likely to have perished or become illegible. Many examples of the latter kind have survived only because they were buried in the hot, dry sand of Egypt or some other country with the same kind of climate; or because they were carefully wrapped in damp-proof coverings (for example, **157**).

Ancient scrolls which have been buried in the sand or hidden away in caves or cupboards are dry and brittle when they are discovered many centuries later, and the unrolling of them is a delicate operation requiring enormous patience and very great skill. The animal skins of the Dead Sea scrolls (pp. 139f.) and the papyrus of the Elephantine letters (pp. 99ff.) required this expert treatment to enable these precious documents to be unrolled without damaging the material or spoiling the writing.

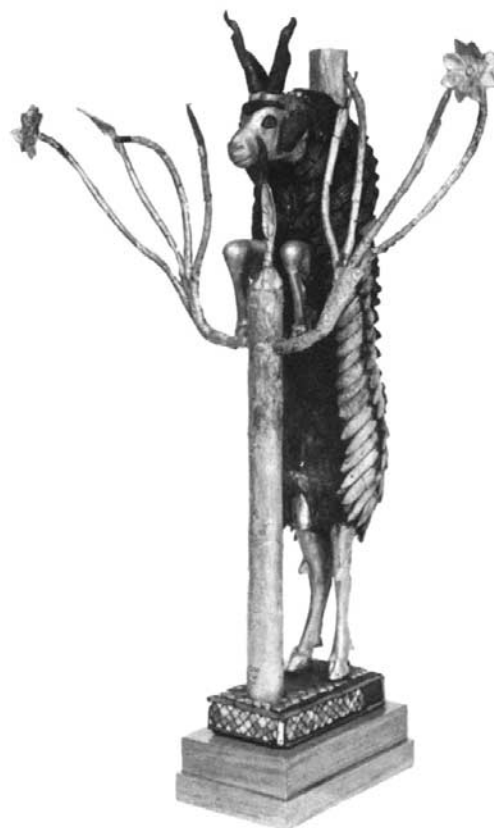
OTHER ARCHAEOLOGICAL TECHNIQUES

Excavation is different from nearly every other scientific exercise, in that it cannot be repeated. A laboratory experiment in physics or chemistry can be performed over and over again for purposes of demonstration, but once a layer has been removed from a tell it cannot be replaced exactly as it was when it was originally found, and then removed again to demonstrate the nature of the operation.

9 *Figure of a goat found at Ur*



10 *Figure of a goat restored*



Excavation destroys its evidence almost as soon as it is discovered, and it is therefore extremely important that during the digging very careful records should be kept. The position of each find must be carefully noted, drawings must be made, photographs from several different angles, in black and white and in colour, must be taken, and records must be kept of all the relevant circumstances associated with every part of the work. At the end of each day's digging the finds must be cleaned, classified and catalogued.

Some of the objects found may be in need of restoration for exhibition and study purposes, and this may require several months of expert craftsmanship. The first photograph (9) was taken at Ur by C. L. Woolley. It shows an object uncovered but not yet removed from the ground. It is quite flat, having been exposed to great pressure by the weight of soil above it for very many centuries. The next photograph (10) shows the same object after skilful restoration. The head, which was broken in eighteen pieces when it was first discovered, has been repaired, and the crushed body has been modelled to the three-dimensional shape it originally had. This remarkable figure of an animal, representing either a goat caught in a bush or a goat feeding from a tree, was found in the royal cemetery at Ur and it is dated about 2600 B.C. Skilful work of this kind is being patiently carried out in many parts of the world, and our knowledge of ancient civilizations is gradually being built up, not least in those lands associated with the Bible.

Technical applications of modern science are used today to help the archaeologist in his work. It is said that Petrie (see pp. 17f.) handled 50,000 bits of broken pottery to enable him to date the occupation levels at Tell el-Hesi. Nowadays, microphotography and chemical analysis, much more refined and much less laborious methods than Petrie knew, are used to identify and classify pottery. Surveying a site has been greatly simplified by the use of aerial photography. Vertical, oblique, and stereoscopic shots give information almost immediately that might take months to obtain by a ground survey. Infra-red plates and filters cut out haze and make it possible to take photographs of extensive areas from great heights (for example, 43). Ultra-violet photography brings out the writing and makes it readable in a document badly darkened by age, and reveals additions or alterations in the original text of a manuscript.

Science has given archaeologists valuable tools with which to date certain of their finds. A substance containing carbon can be dated by the radio-carbon method. This technique was used to date the linen coverings in which some of the Dead Sea scrolls were wrapped (pp. 139f.). Writing materials made from leather can be dated by a method used in the University of Leeds on fragments of

the Dead Sea scrolls. The amount of shrinkage of a shred of leather with rising temperature is determined by its age, and this gives a quick and simple method of dating this kind of document.

Without doubt, the further use of scientific methods of investigation and the application of new techniques to archaeological problems will bring to light new discoveries, and these in turn will lead us to a greater knowledge of the history, customs and beliefs of the people of the Bible, to a better understanding of the text of the Bible, and to a more profound appreciation of the Bible and of its meaning for mankind today. These, whether we achieve them soon or late, are the aims of biblical archaeology.