

REVIEWS AND NOTICES OF PUBLICATIONS.

The Early Weights and Measures of Mankind, by General Sir Charles Warren, G.C.M.G., etc. Published by the Committee of the Palestine Exploration Fund, London, 1913.

In this slender volume of less than 140 pages, Sir Charles Warren undertakes the herculean task of tracing nearly all existing weights and measures to their origins in the early days of mankind. Almost from the first page onwards—more particularly in the first chapter—the book bristles with statements that challenge either a simple contradiction, or at least to further enquiry and the production of further evidence. Doubtless the learned author, conscious of the originality of so many of his views, is prepared for a considerable amount of dissent. Unfortunately, the subject and its treatment are so technical that it is exceedingly difficult, if not impossible, to state in briefer compass than in the book itself the processes by which from the earliest of all weight standards—the *rati*, or seed of the wild liquorice—the higher denominations of weight and the other standards of volume, etc., have been evolved. Sir Charles works first of all by a combination of binary systems based respectively on 4, 64, 80 and 100 of the primary unit. These he terms the Ganda, octaval, octogintal and decimal systems. By highly technical processes, including the squaring of the circle and the determination of the value of π , the calculation of the diameter of the earth and the measurement of an arc of the meridian in Babylonia, and in particular by the hypothesis of a standard of volume equal to the double cubit cubed, we are introduced to a bewildering succession of standards both of weights and measures.

The present writer, whether it is that he is no mathematician, or by reason of mental obtuseness, has to confess that ever since he began to study the problems of ancient metrology, he has been extremely sceptical on the subject of the determination of the early standards by such anticipations of the scientific methods of the authors of the French metric system.

Leaving this debateable question of origins, we note that Sir Charles finds that about the time of the First Egyptian Dynasty a radical change in weight systems took place, a change from what, in terms of his system, he calls binary measures, to sextarial measures. Here, as elsewhere throughout the book, there is a mass of metrological material that deserves careful study, and that requires as careful sifting. It is impossible here to enter into details, but the student's attention is directed to Tables IX and X, where the results are presented in tabular form, and alternative derivations suggested not only for familiar ancient weights such as the Attic mina and the Roman pound, but for our own Troy pound and the old Tower pound. Attention may also be called to the author's view that there have been only six kinds of shekel of the values here given (p. 40). Here we find a new derivation of the wide-spread Phoenician (or as it here is also called, late Gudean) shekel. Given an original value of 225 O.G.T.—original Troy grains—it is entered as $\frac{9}{10}$ of the Gudean shekel, No. 5 in the list, of which the value is given as "the weight of 1 cubic inch of water, 250" grains.

The short discussion which follows on Hebrew weights (pp. 47 f.) seems to introduce unnecessary complications. I am glad, however, to observe that Sir Charles Warren recognizes the presence in Palestine of the Eginetan standard, specimens of which I described in a recent study of "Inscribed Hebrew Weights from Palestine" (*Expository Times*, XXIV (1913), pp. 489–491). With reference to Tables XVI and XVII, the former based on Petrie's results in his "Inductive Metrology," I would call Sir Charles's attention to the only Hebrew cubit which can be determined inductively. Working to a large extent on materials supplied by Sir Charles's own works on Jerusalem, I have found that Herod's masons worked with a cubit of 17.6 inches, the numbers for certain specified measurements in the temple enclosure, gates, etc., coming out exactly without a fraction (*Expository Times*, XX (1908), pp. 24 ff.).

Passing over Chapter III, which deals with Attic, Roman and Moslem weights and measures, where the documentary evidence, archaeological and literary, is more abundant, we come to one of the most interesting and instructive chapters of the book, Chapter IV, "Early Weights and Measures of Northern Europe and Britain, and the Measures from Prehistoric Remains." With regard to the former and more important part of this discussion, the relation of

mediaeval and modern European standards to those of antiquity, it is to be regretted that our learned author has not, apparently, made the acquaintance of the numerous essays on this subject by Dr. C. F. Lehmann, now Prof. Lehmann-Haupt of Liverpool.

As to the validity of the results obtained in the fifth chapter on the weights and measures of India and the Far East, I am unable to express an opinion. Here, however, as elsewhere throughout the volume, there is a mass of facts and figures which will be of the greatest value to future students of Indian metrology.

Of the book as a whole it may be said with perfect frankness that however sceptical one may feel with regard to many of the conclusions reached by its erudite author, every student is deeply indebted to him for the vast collection of metrological data here registered. Recognition is also due, in no stinted measure, of the infinite labour that lies behind the thousands of mathematical calculations, some of them of a highly technical character, and the elaborate and skilfully constructed tables of comparative weights and measures, forty-three in number, which are a feature of the book.

Let it be said in conclusion that it is dedicated "to the memory of the much esteemed and valued friend of a lifetime, Claude Reignier Conder, LL.D."

A. R. S. KENNEDY.

The Latest Light on Bible Lands, by P. S. P. Handcock, M.A.,
Lecturer of the Palestine Exploration Fund, etc., etc. (London:
S.P.C.K.)

This small octavo volume contains an amount of information regarding the more recent archaeological discoveries which bear upon Old Testament history that might readily have filled a much larger book: but the matter is wisely condensed so as to form a handbook to the study of the subject, which the footnotes facilitate; while to the ordinary reader the author offers sufficient typical examples of archaeological evidence, with the explanation of their value to Biblical History, to encourage him to further pursuit. But the reader needs to keep his attention very wide awake, so extensive are the areas to which the interest extends and the periods of time covered; so little, on the other hand, has been known until recent times of their ancient history, of their political relations with each other, or of the influences which produced or affected those

relations. It is often a tangled web. These great empires of Babylonia, Assyria and Egypt, each for long periods dominating the known world, pursuing aggrandisement by conquest, becoming rivals in power, all overshadowed Palestine, which lay between them. As the power of each waxed or waned, so Palestine felt the influence of that power, exercised usually with no gentle hand.

Mr. Handcock begins his work by a brief explanation of the evolution of the cuneiform writing, and by tracing Babylonian history from earliest times. He then adduces the remarkable parallel between the Babylonian legend of a flood and the description of Noah's flood in Genesis.

This chapter is headed "Babylonia, the Native land of Abraham." He came from "Ur of the Chaldees." The author shows, from modern researches, that the city of "Ur" was in existence well before 3000 B.C., and more than a thousand years before Khammurabi (Amraphel), Abraham's contemporary. In the following chapter, "The Hebrews before the Exodus," the author instances the many parallels between the laws of Khammurabi and the Mosaic law: and gives reasons for supposing that Joseph and his brethren were in Egypt in the period of the "Shepherd Kings." Again, he refers to the excavations of M. Naville as going to prove that the store-city, Pithom, built by Rameses II (near the modern Tell el-Kebir), was one of the scenes of the oppression of the Hebrews, and that the general evidence goes to show that the Hebrew Exodus, described in the Bible, took place in that reign or in that of his successor, Menepthah. He, however, refers to other views on this subject. As to the question of the route of the Exodus, that must still remain open. It is quite possible that the survey of the country south of Beersheba, now in progress for the Palestine Exploration Fund, may throw new light on this.

The "Tell el-Amarna" letters are discussed and their value pointed out, especially as regards the political relations between Egypt and Palestine at the time of Amenhetep (*c.* 1400 B.C.), to whom many of them were addressed by his district governors, in provinces or cities of Palestine, and in Babylonish characters.

The many monuments and inscriptions which have more or less connection with the events spoken of in the Old Testament as occurring during the Jewish monarchy are amply illustrated and explained in the chapter headed "Israel in Canaan," after which

many pages are devoted to the modern excavations in Palestine by this and other Societies. The more important results of these excavations are noted, and the historical value of their evidence briefly explained.

Mr. Handcock's book should be of great assistance to those who desire to obtain a general insight into the relation of modern discovery to Biblical History.

J. D. C.

Mélanges de la Faculté Orientale, Tome V., Fasc. 2.

Prof. Ronzevalle has made a careful examination of the Gezer Tablet at the Ottoman Museum in Constantinople, and has published the result of his studies in an admirable article accompanied by four plates which practically place the student in the same position as if he had the original before him. The inscribed face has been photographed in two different lights, so as to bring out every detail of the surface. There is also an excellent pen tracing of the inscription itself and a photograph of the reverse.

Prof. Ronzevalle does not consider that the tablet is a palimpsest. The only thing approaching such a phenomenon is the correction made by the scribe himself in line 5 which is perfectly recognisable, and there is no remaining indication that the surface ever bore any other text. Furthermore, he considers it a mistake to suppose that the hand which traced these lines was an inexperienced one. The anomalies and irregularities are merely what might, naturally, be expected from a scribe who might be accustomed to rapid and graceful writing with the reed pen, but who found it awkward to trace characters with a point upon such an unaccustomed surface as this little limestone tablet. The chief peculiarity which strikes the Professor is the appearance of the *mem*, which has a distinct extra initial stroke in both instances, a characteristic unique in Semitic epigraphy, and he expresses surprise that this circumstance should have escaped the notice of every previous observer and even that of Dr. Lidzbarski. It is somewhat misleading to speak of this little monument as a "calendar." It contains nothing more than a list of the succession of agricultural operations in the district of Gezer, and there is no reason to regard any one of them as being in any sense the local name for one of the months. In contradistinction to Father Vincent, Prof. Ronzevalle holds the most frequent character upon the stone to be a *van* and not a *nun*, but he does not agree

with Dr. Lidzbarski in the view that this is to be explained as *vav compaginis*, which is merely an artificial construction found in poetical passages of the Old Testament. The sixth character of line 4 appears in the photographs and in the cast of the inscription much more like a *he* than like a *resh*, and if it be a *he* it is the ordinary definite article which thus excludes the *vav compaginis*.

As regards the object of the inscription, Prof. Ronzevalle rejects the idea that it could have been intended for public exhibition because, as he points out, the object is so small that the letters upon it are barely distinguishable at a yard distance. He calls special attention to the surface of the stone, which has been worked and polished into something like a "pillow" shape, comparable in every respect with the form of the clay tablets upon which cuneiform texts are traced. This seems to indicate that the Gezer inscription was more of the character of a despatch or missive intended to be passed from a chief to a subordinate and preserved in the Archives.

The final and perhaps the most difficult problem is the date of this Gezer text. Mr. Stanley A. Cook in *Q.S.*, 1909, p. 309, regarded the palaeographic evidence as pointing to some time after the seventh century. Prof. Ronzevalle contests this view, because the Gezer alphabet obviously belongs to an earlier stage than that of the Siloam inscription, which is identical in the forms of its characters with those found upon the fragments of pottery discovered by M. Morgan at Susa in a stratum anterior to the Achemenian invasion of Elam in the last years of the seventh century. This would tend to place the Gezer inscription in the eighth century, if not in the ninth, as already suggested by Dr. Lidzbarski and Prof. Buchanan Gray.

Prof. Jouon continues his lexicographical notes on the Hebrew Bible, and makes some interesting observations in regard to textual criticism. Prof. Chaîne discusses the original text of the *Verba Seniorum*, a document of the highest importance, for the study of the early history of the Church in Egypt. He shows that this was primarily a Greek composition translated at a later period into the Coptic and other languages. Prof. Ronzevalle concludes his full and learned disquisition on *l'Aigle Funéraire en Syrie*, and describes several little-known Phœnician monuments preserved in the Museum at Constantinople.

E. J. PILCHER.

מטבעות היהודים : *Coins of the Jews : A History of Jewish Coinage in Classic Hebrew*, by Samuel Raffaeli. Jerusalem, 1913, 8vo, vi, 199 pp., 35 plates. Table of Alphabets (*Internationale Buch und Kunsthandlung* : Jerusalem and Leipzig. Price 7.50 francs.)

The literature of classical Hebrew is no longer confined almost exclusively to religious and devotional matters, but is being extended to many subjects of general interest. This is not surprising, seeing that the ancient tongue is the common bond of the numerous Jewish communities scattered in various parts of the world; and it was therefore a happy idea on the part of Mr. Raffaeli of Jerusalem to bring out a series of volumes dealing with Jewish Antiquities, which should more strongly appeal to Hebrew readers by being in their common language; and it need hardly be said that Mr. Raffaeli's enthusiasm for archaeology and his grasp of the subject render him a trustworthy and informing guide. His last work in classical Hebrew was devoted to the monumental illustrations of early Jewish history, and the present volume deals with the equally interesting department of Jewish Numismatics. It is not an easy study, for ancient coinage is surrounded with its own special problems, and there are some very debatable points connected with Hebrew numismatology. We may confidently look forward to the solution of many of them when we have the British Museum Catalogue of the Coins of Palestine, which is rapidly nearing completion under the care of Mr. G. F. Hill, whose views will undoubtedly be accepted as those of a recognised authority. In the meantime there is ample scope for differences of opinion.

Mr. Raffaeli commences with a sketch of the literature upon the Jewish coinage, ranging from the somewhat wild guesses of mediaeval scholars to the standard works of Madden, Reinach, and Hamburger; and the recent articles in the encyclopaedias, more especially the *Jewish Encyclopaedia*. He then proceeds to the ancient systems of metrology, more especially the Egyptian, Assyrian, and Persian. No essay on this subject is now complete without a reference to the series of weights with Hebrew inscriptions which have been brought to light during the last twenty-five years through the work of the Palestine Exploration Fund, and have been discussed in the *Quarterly Statement*, 1912, in Mr. Macalister's *Excavation of Gezer*, and more recently by Prof. Kennedy in the *Expository Times* of August and September, 1913.

The consideration of the ancient systems of metrology leads on to the story of the invention of coinage, the earliest coins familiar to the Jews being the darics of the Persian kings. These were followed by the issues of the Ptolemies and the Seleucids; and under the Hasmonean dynasty we meet with coins bearing inscriptions in the Hebrew language and the Old Hebrew character.

Mr. Raffaelli assigns to Simon Maccabeus the well-known silver pieces with the lily and the chalice, and the words "Shekel of Israel." Also any copper coins which happen to be inscribed *Simon nasi Israel* (Simon Prince of Israel), and those marked *Shenath shelosh* (Year three) and *Shenath arba* (Year four). He does not allow any coinage to the First Revolt; but gives the whole of the balance to the Second Revolt under Bar-Cochba, who is thus limited to two years of issue. This arrangement is somewhat unsatisfactory from a numismatic point of view because, for instance, we meet with two coins of identical appearance, and having the same types, and the same obverse inscription; and yet one is assigned to Maccabeus because it bears on the reverse *Simon nasi Israel*; and the other is attributed to Bar-Cochba because it has on the reverse *Jerusalem*. One would imagine that they were coeval, and not that they were separated by a term of three centuries.

The small copper coins of the Hasmonean princes are well illustrated; but as they all bear the names of the issuers, there is no question about them. We also have a full list of the pieces bearing the names of the Herodian dynasty; and the long series of the Procurators of Judaea. The admirably illustrated work closes with plates of all extant issues of the Roman Colony of Aelia Capitolina, including a new coin of Marcus Aurelius which was not known to Mr. Madden.

E. J. P.

Nazareth of To-day, by Frederic John Scrimgeour (of Nazareth), with 75 photographs by the Author. (Edinburgh and London: William Green, 1913.)

The author, who acts as Hon. Secretary for this Society in his locality, has produced, in this book, a simple and interesting record of the habits and customs of the people among whom he lives; and he has done this at a time when such habits and customs still retain much of their traditional character, while it is evident that they are becoming yearly more subject to external European influence. It has the same interest, on a more limited scale, as Lane's "Modern

Egyptians" of some sixty or seventy years ago; and like that well-known work, probably records much that half a century will obliterate.

Only long residence among a people can enable a writer to acquire that full knowledge of their daily lives which is necessary for such a record, and then only if he lives in frequent contact and sympathy with them.

Mr. Scrimgeour, as Surgeon of the local Mission Hospital, has had the requisite opportunities of observing, and the discretion and kindness to gain the confidence of those among whom he lived. These are partly Moslems, and the rest Christians of many denominations.

He describes first the position of the town and character of its buildings; and then under such headings as "Trades," "Seasons," "Households," "Bazaars," "Health," "Babyhood," and the customs connected with Marriage, Funerals, Recreations, he illustrates, simply and succinctly, the details of daily life. One other item, not the least interesting, is the "Cooking," as to which Mrs. Scrimgeour has collected a series of native recipes.

Altogether, in little over a hundred pages of text, the author has written a very clear and interesting account of the daily lives of the people: and has done so picturesquely and, be it added, with a charming modesty.

The many photographs, well selected as to subject, add to the value of the book.

J. D. C.

Bacon's New Contour Map of the Near and Middle East—(The Land of the Five Seas).

We have received from Messrs. G. W. Bacon and Co., Ltd., of 127, Strand, a copy of this useful and clear map, recently issued as the latest of their series of school maps. This one is of a convenient size for reference, 32 by 42 inches, to a scale of 95 miles to the inch. It is coloured by contours, the various physical characteristics of any part being thus simply indicated. It includes the Empires of Babylon, Persia, Parthia, Egypt, and Rome, but makes no attempt at demarcation of frontier; only a few more important cities are shown. Inset on the larger map is a map of Palestine in which the rift Valley of the Jordan and Dead Sea, the Mountains of Judea, the Peak of Hermon, and the Plains of Sharon are clearly illustrated.