recent inquiries from Professor A. Winchell,¹ says that the assumption that the Horseshoe fall has receded one hundred feet during the last thirty-three years cannot involve any great degree of uncertainty. Thus from the best light we now have, it seems altogether probable that the cataract is receding at a rate that would suffice to produce the whole chasm from Queenston up in less than twelve thousand years; and if, as is not unlikely, any considerable portion of the gorge above the whirlpool had been formed by preglacial agencies, even that relatively short period must be considerably abbreviated.

ARTICLE X.

ASSYRIAN RESEARCH AND THE HEBREW LEXICON

BY PROFESSOR D. G. LYON, PH.D., HARVARD COLLEGE.

Last year Professor Friedrich Delitzsch published, in the Athenaeum, of London, a series of articles on the Importance of Assyriology to Hebrew Lexicography.² Several publishers, who appreciated the excellent quality of the articles, at once offered to reproduce them in a more permanent form. The result is a small book, entitled: The Hebrew Language viewed in the Light of Assyrian Research.³ For the treatment of this subject no scholar is so competent as Professor Delitzsch. An enthusiastic student, with a genius for language, he has been for several years occupied with the compilation of an Assyrian, and also of a Hebrew, lexicon. His acquaintance with the lexicographical material of the Assyrian and Babylonian monuments is certainly greater than that of any other scholar. His little volume, containing only eighty-five pages, is the product of a mind evidently possessed of its subject. The style is simply charming. There has certainly not appeared for many a year a book more important for Semitic study. Any person interested in the Hebrew of the Old Testament will find this a welcome volume.

Two great principles guide Delitzsch in his lexicographical work.

¹ See Winchell's World Life, p. 371.
² May 5, 12, 26; June 9; July 21, 28; August 25.
The first is that the Hebrew language must be explained chiefly by Hebrew, and the Assyrian by Assyrian. The second is, that the Assyrian is a better source than the Arabic for the explanation of Hebrew. For the explanation of Hebrew out of Hebrew and Assyrian out of Assyrian, we derive great assistance from parallel passages and from the parallelism of clauses. Independently of all help from outside sources, this parallelism, together with the usage in such passages as 2 Chron. xxviii. 15, might lead one to suppose that נָדַע and בֵּית are synonyms in Ps. xxiii. 2, and accordingly to translate: "He maketh me to lie down in green pastures, he causeth me to rest beside the still waters" (p. 6). This conclusion is confirmed by the Assyrian, which represents by the same ideogram the words נָדַע (nā'du), נַדַע (nā'l), and רַבָּע (rāḇā'u).

In claiming that Assyrian is a better source than Arabic for the explanation of Hebrew, Professor Delitzsch has made a new departure. The consideration that Hebrew and Assyrian were literary languages in the same period, while Arabic attained to the literary stage at least a thousand years after the decline of Assyrian, would lead us to expect closer affinities between the two older branches than between the Arabic and either of these. The vindication of this supposition is, of course, a task for patient comparison.

But now what is the actual state of Hebrew lexicography? We find it hopelessly bound in Arabic fetters. Because the last of the Semitic languages to attain to a literary stage has such a large vocabulary, and because, forsooth, it has often preserved ancient meanings and forms, it has come to be regarded as the great source from which Hebrew words are to receive light. It matters not that the three consonants composing the body of a word have in the two languages utterly divergent meanings. Ingenuity can invent a connection. Of course, בָּע "to send," and Arabic ساляخ, "to skin," are one word! Starting with the idea of skinning, we pass through the stages "to draw out, to extend, to stretch out, to send." בָּע, "to lie," is compared with Arabic شکر, "to be red," lying being regarded as reddening or varnishing the truth. The connection between בָּע, "to join," and Arabic كَسَر, "to break," is that two objects may be either broken or joined by striking them together. Such etymologies, whose number might be increased, Delitzsch regards as ingenious, but worthless (p. 8).

His volume is throughout a polemic against this mode of treating Hebrew. He arraigns specially the editors of the recent editions.
of Gesenius's Hebrew Lexicon. The charge is not that they have been unable to give the true etymology of words which could be explained only by a knowledge of Assyrian, but that they have forced different and often late Arabic meanings on Hebrew stems, that they have in the last edition repeated errors from which the glossary of any Assyriological publication might have saved them, and, worst of all, that they have made such persistent use of the doctrine of bi-literal stems, at best only an unproved theory. He would dispense with these features of the lexicon, and use the space thus gained to better purpose. Arabic, and indeed all the Semitic languages, should be retained, but he would give to Assyrian the prominent position which Arabic now occupies. Hebrew lexicography has been greatly aided even by adding the Assyriological material at the end of the articles, or placing it in parentheses; but the case is so serious that this treatment will no longer suffice. The greatest Assyrian authority demands nothing less than such a thorough revision of the Hebrew lexicon that scarcely a single stem shall escape the process of overhauling. It may be that the value of Assyrian is here too strongly stated. It may be that Delitzsch's new volume commits the same kind of mistake as that which is chastised in Gesenius's lexicon, and offers here and there a far-fetched etymology or one which time will not confirm. Yet, taken as a whole, the work is so suggestive as to be worthy of the minutest study. In the notices which follow I shall select from Delitzsch's list some of the more interesting words, adding occasionally illustrations and references to the original works.

Let us first note some common nouns in Hebrew.  רָעָה, "man" (p. 58), for which Dillmann admits that no certain etymology has been found, is compared with an Assyrian stem admu, from which we have admu, "a child," synonyme of lidānu (לדנן), and admānu, "a building, a dwelling-place," specially used of the sanctuary, the dwelling-place of the gods. The reduplicated stem dadāmu gives dadmu, "dwelling-place," applied both to houses and to countries. Admu is used of young birds, abal issuri (cf. אַבּוֹל אֲסָרִי, "young pigeon"). These words lead us to a stem הָאָמָן with the meaning

1 W. A. I., ii. 37, 21; ibid., 30, 44 and 47.
2 W. A. I., ii. 34, 7 and 8.
3 Ibid., i. 15, 74; 86, 39.
4 References in Lyon's Keilschriftexte Sargons, p. 62.
"to build," or "to beget"; and רֵעָה, "man," Delitzsch regards as a synonyme of יִסָּה, "the created one," or "the begotten one."

Much more probable is the explanation of הבּוּר, "a banner" (p. 89). Starting from the Arabic dagala (dagala), "to cover," the lexicon explains הבּוּר as "the covering of the staff." The verb הבּוּר is further explained as a denominative verb, meaning "to erect a banner," or "to provide with a banner," while הבּוּר (Cant. v. 10) is one provided with a banner. In Assyrian dagālu, synonyme of amāru, is a verb oft occurring, and meaning "to see." 1 In an oracular address to Esarhaddon, a goddess says: "Direct thine eyes to me, look to me." 2 From the verb dagālu comes the noun diglu, "something to be looked at." The sun-god is called, in a remarkable psalm recounting his glories, the digil of the vast earth, to which all nations look up and rejoice. 3 הבּוּר (with suffix הבּוּר) is evidently the same as the Assyrian diglu. The verb הבּוּר, in Ps. xx. 6, may be a denominative from הבּוּר; but Delitzsch even here holds to the meaning of the Assyrian dagālu, and renders: "We will rejoice in thy salvation, and keep our eyes directed upon the name of our God." 4 "The chiefest among ten thousand" (יהי יִשָּה בּוּר, Cant. v. 10) is not the standard-bearer among ten thousand, but the one who attracts the eyes more than any other among ten thousand.

The word הבּוּר, "deluge," is considered as a derivative from הבּוּר, for which the meanings "to go" and "to flow" are assumed. Delitzsch objects (p. 67) that the form would be without analogy, and that הבּוּר never has in Hebrew the meaning "to flow," but only the meaning "to lead, to bring," like the Assyrian abālu. הבּוּר is from a stem הבּוּר, and is such a form as הנָבָר, "spring," from הנָבָר. In Hebrew the intransitive הבּוּר is used of the withering of the leaves, and the dead body is רָדִּים, Assyrian nabultu. 5 In Assyrian the verb nabālu, "to destroy," is of frequent occurrence. 6 The kings name themselves nablu, "the destroyer." 7 The idea of raining down destruction is a familiar one. In a passage of great poetic vigor,

1 See many references in Lotz's Die Inschriften Tiglathpileser I., p. 131. In W. A. I., iii. 15, col. i. 10 ff., the forms adilu, "I looked, saw," and amur occur in two parallel clauses.
2 Mutux enika anu ašši dugulanni, W. A. I., iv. 68, 28. 29
3 Ibid., iv. 19, No. 2, l. 54-57.
4 Ibid., v. 31, 38.
5 For instance, in the standing phrase, such and such a city, ʾiṣā ʾiṣāṭi ashrup abālu okkiṭu, "I burned with fire, I destroyed, I devastated." Ibid., i. 10, 1.
6 W. A. I., i. 9, 42.
describing Assurbanipal’s campaign against the Arabians, it is said of the goddess Istar of Arbela, who is represented as clothed with fire: ʾēli Arabi ʾizannun nāḥi, “Over Arabia she rained down destruction.” The deluge is called ʾāṣē, as the “destroyer” or “destruction.”

“ʾāṣē, “price” (p. 49), for which Hebrew has no corresponding verb, has an exact equivalent in the Assyrian maxēru, “price,” from the verb maxērū, “to receive.” The price is simply that which is received. In Assyrian the verb is in constant use. For instance, Shalmaneser says: “I received (amēxur) tribute from Jehu the son of Omri.”

The booty taken by Assurbanipal in his Arabian campaign was, after the return to Assyria, disposed of by sale. The narrative says of the buyers, ʾāndanaxēru gammalē u amēlēti, “they purchased camels and men.”

The word ʾāṣē, generally rendered “species” or “kind,” has no Hebrew etymology, and none that is satisfactory from the Arabic. Delitzsch proposes to identify it with the Babylonian mínū, “number” (p. 70). This gives, he thinks, good sense in all passages where the word occurs, and corresponds well with the Assyrian usage. Compare such expressions as ana lā mínā, “without number.”

It is usual to regard ʾāṣē, “seaman,” as connected with ʾāṣē, “salt.” Delitzsch, on the contrary, considers the word as of non-Semitic origin (p. 63). In the (non-Semitic) Sumero-Akkadian the idea “seaman” is composed of the two signs ma, “ship,” and lāx, “to go.” Thus in the cuneiform account of the deluge, after mentioning the closing of the ship’s door, the narrator states that the control of the ship is delivered to the ma-lāx. There is evidence that this non-Semitic malāx was adopted by the Assyrians in the form malāxu, and through them, or directly, it may have passed to other Semitic peoples. This view is strengthened by the circumstance that the word ʾāṣē occurs only in Jonah (once) and in Ezekiel (three times).

ʾāṣē, “to cultivate a field,” is supposed by the lexicons to be related to ʾāṣē, “to give light,” cultivating a field being considered as giving it light. But the Arabic nīru, “a yoke,” ought to have led to a more likely etymology. The Assyrian nīru, “yoke,” and the Assyrian verb ʾāṣē, “to subjugate,” scarcely leave a doubt that the Hebrew

1 W. A. I., v. 9, 81; cf. ibid., i. 22, 106.
2 Ibid., iii. 5, 65.
3 Ibid., v. 9, 52. For maxērū, “price,” cf. also W. A. I., ii. 13, 27.
4 Ibid., i. 9, 84.
5 Ibid., iv. 50, 38.
6 Ibid., v. 21, 5.


is the same word, and has nothing to do with נופ and נפל, "to shine." To subject a king or a nation ana נירָא, "unto my yoke," occurs in large numbers of the Assyrian royal annals. See also the verb נינַרָא, "we will subdue" (thine enemies), said to have been spoken by the gods to Esarhaddon, apparently at the time when he was contending with his brothers for the throne of Assyria. De- litzsch even mentions a use of the word for the cultivation of a field, as in Hebrew (p. 52).

In some cases the Assyrian makes known the radical nature of consonants which have been supposed to be only formative in Hebrew words. Thus, in רב, "much, many," Assyrian מַדּוּ, the stem is not רב, and ד is not formative, but the three letters are radical, which is abundantly proved by such verb forms as ע-מַדּוּ. Similarly ד is radical in אֲנַיָּמ, Assyrian תָּדְמָו, תָּדְמָו, "the sea" (p.66). In other cases cuneiform study shows the non-Semitic origin of words, and thus stops further efforts at etymology. דַּלְתָּ as a probable case has been already mentioned. דַּלְתָּ, "palace," Assyrian עָקָלָה, is a noted illustration. As was long since pointed out, this is only the non-Semitic ד, "house," and גָאָל, "large," ד-גָאָל passing over into Assyrian ע-קָלָה, "the large house, the palace." The numeral גָאָל, always used in connection with the numeral ten, and making with this the number eleven, can only be the Assyrian ishten, which in turn comes from the non-Semitic גָא, "one," and גָא, "number."9

Various titles and proper names in the Old Testament are made clear by Assyrian study. הבִּיר נְבִיאוּּוּ, represents a Babylonian original אָבֵל-מַרְדּוּ, "man or servant of Merodach" (p. 12). The Adrammelech and Anammlech of 2 Kings xvii. 31 would be read in Assyrian אדר-מַלּיָ, "Adar is prince," and אנו-מַלּיָ, "Anu is prince."5 Belshazzar (Dan. v. 1) is the Babylonian בֵּל-שָׁר-עַסָּר, "Bel, protect the king."8 A remarkable prayer is preserved, in which Nabonidus (Babylonian נבּאָן, "Nebo is exalted"), the royal father of Belshazzar, prays that the son may be kept from sin.7

1 W. A. I., iii. 15, col. i. 9. 2 Piel impf. ibid., i. 43, 30. 3 See Friedrich Delitzsch in George Smith's Chaldäische Genesis, p. 277 ff. 4 For quotations from contract tablets dated in the reign of this king, cf. p. 79 of Strassmaier's Alphabetisches Verzeichniss der Assyrischen und Akka-dischen Wörter, etc. Leipzig, 1882. 5 See p. 284 of Schrader's excellent work, Die Kellinschriften und das Alte Testament. Giessen, 1883. 6 Ibid., 433. 7 Ibid., 434; W. A. I., i. 68, col. ii.
Esarhaddon is the great Assyrian king Ashur-âx-iddin, “Asur has given a brother” (p. 12). בֵּבִי is Bâb-ilu, “Gate of god.” אֵלֶּה, the deity whose image was made by the people of Cuth (2 Kings xvii. 30), is the great lion deity guarding the entrance to the royal palaces, whose non-Semitic name (Nê-uru-gal) represents him as the deity of the under-world (p. 12). The origin of the name אֵלֶּה is obscure. That, however, the goddess of this name is one with the Assyrian Ishtar is clear, and the two languages present parallel usages of the word (p. 12). אֵלֶּה (Isa. xxxvi. 2), commander of the Assyrian army sent against Jerusalem, is not a proper name, but “the chief of the officers,” Assyrian rab-shâkî (p. 13). אֵלֶּה (Isa. xx. 1) is the commander-in-chief, Assyrian turtânû, a derivative of tûrtu (tûrtu), “law, commandment” (p. 12). אֵלֶּה, title of the Chaldean prefects, is the Babylonian pâxâtû or pîxâtû, “a district or province,” afterwards the governor of a province, whose fuller title was bêl pâxâtî, “lord of the province” (p. 13).

Delitzsch offers for the two Hebrew words אֵלֶּה, “ruler,” and אֵלֶּה, “prince,” Assyrian sharru, ingenious etymologies, according to which these titles are taken from the brilliant appearance of these two officials (p. 54 ff.). The Assyrian stem shârâru, “to shine,” occurs in the form sharruru, “brilliance, splendor,” synonyme of namûrrû and mélammû, which are well known in the sense of “splendor.”¹ The kings often speak of the splendor of their dominion. Sennacherib, for instance, says of Lulî, king of Sidon, “the fear of the splendor of my dominion overwhelmed him” (Assyr. pul-xî mê-lam-mê bê-lutî-ia is-xu-pu-shû²). The connection of sharrû, “king,” with shârâru, “to shine,” seems, therefore, not improbable. For the verb אֵלֶּה Delitzsch assumes two different stems, one meaning “to resemble,”³ the other “to shine.” From the second he derives אֵלֶּה, “the shining one, the governor.” One wishes that he had here given some references to the original.”⁴

In the department of natural history Assyrian offers material for comparison with the Hebrew. To explain יִיָּשָׁר, “stone,” however, as the pointed object, because the Assyrian abnu means “stone”

¹ W. A. I., ii. 35, 4-9; cf. Lotz, Tiglathpilesar, p. 83.
² Ibid., i. 38, 35.
³ Cf. the frequent tamšil, “resemblance,” e.g. Keilschrifttexte Sargons, 15, 41; 16, 67.
⁴ We meet the word ma-shal in the expression ilâni ma-shal (ızal, ṭag) mûtššû, “the gods, the ma-shal of his country,” W. A. I., i. 39, 55; 40, 23; 43, 8.
and *udhnu* means "tip of the finger, peak" (p. 57), can scarcely be called fortunate. On the other hand, the *yôn* of Isa. xiii. 21, which the authorized version renders "doleful creatures," seems to have an equivalent in the Assyrian *diād* (p. 34), "the evil one," probably the jackal. The Assyrian *xabasillatu* is evidently the same word as the Hebrew *rē'ābāh*. But *xabasillatu* is represented as a species of reed.  
1 Delitzsch would therefore translate Cant. ii. 1; Isa. xxxv. 1: "I am the reed of Sharon and the lily of the valley"; "The wilderness and the solitary place shall be glad for them, and the desert shall rejoice and sprout like the reed" (p. 35) But the Assyrian word cannot do more than suggest that the Hebrew word means a reed. The same word may have different uses in different languages, and this is specially true of the names of trees.  
2 The *šakā* or *ša* is the well-known Assyrian *rēmu*, a powerful mountain bull (p. 6).  
3 The rendering of *rēmu* by "unicorn" is, of course, impossible, because this animal is represented in Ps. xxi. 21 as having two horns. The Hebrew *šāk* is the Assyrian *šēnu*, "flock" of sheep and of goats. This word Delitzsch derives from an Assyrian stem *šak*, "to be good," which he says is a synonyme of *šēnu* (p. 46). Sheep and goats would then be called *šēnu* because of their gentleness and tameness (p. 46). One wishes that he had given other illustrations besides those to which he refers.  
4 Are goats really better than cows?  
5 The comparison of Hebrew and Assyrian words expressing family relationship is interesting. For *rū*/*šēnu*/*šēnu*, "mother," is explained in the lexicon by the aid of the Arabic *amma*, "to precede," as the one who precedes the child; and *šēnu*, "cubit," is supposed to have meant originally "forearm," the forearm thus being the mother of the arm; while *šēnu*, "nation," is said to be the body of people following an *imām* or leader. Delitzsch, on the other hand, considers that all these words come from a stem *šak*, meaning "to be wide" or "spacious" (p. 60). *šēnu*, Assyrian *ummu*, "mother," would originally have meant the womb, as the spacious receptacle of the child; and he states that the word is often so used in Ass-

1 W. A. I., v. 32, 62.  
3 C. Schrader, Keilinschriften und Geschichtsforschung, p. 189.  
4 In Lotz, Tigrathpilesar, p. 87.  
6 W. A. I., v. 25, 41.
syrian. ḫātun, Assyrian ammu,1 "cubit," would be "width, length," and then the definite measure "cubit." ḫātun, "nation," Assyrian ummu,2 "nation, army," would be so called as a numerous body of men. Compare such expressions as nishē raphāṭē,3 "the vast nations." This explanation seems quite probable, at least in the case of the words for "cubit" and "nation."

From the stem ḫātun the Hebrew has the forms ḫātā, "father-in-law"; ḫātātum, "mother-in-law"; ḫātum, "bridegroom, son-in-law, one related by marriage"; ḫātā, "nuptials," and the evidently denominative Hitpael, meaning to contract affinity by marriage. The lexicon compares the Arabic ḥātanā, "to circumcise," and explains ḫātun as meaning "to cut, to cut into," applied to "entrance into another family." But the Assyrian has preserved the stem ḥātanū in another sense, viz. "to help, to surround, to protect" (p. 45). This ḥātanū is a synonyme of Ṣarārū, "to help."4 The sun-god is addressed as ḥā-tin ēn-shēti,5 "protector of the weak," and Sargon applies similar words to himself.6 Delitzsch regards ḫātā and ḫātātum as the protectors of the young family, and compares ḫātā, ḫātātum, "father-in-law, mother-in-law," from a stem ḫātā, "to surround."

That the names of the months adopted by the Jews in the Babylonian Captivity cannot be explained except by the aid of Babylonian study scarcely needs to be stated. Delitzsch's effort (p. 14 ff.) is in the right direction. He explains ḫātā, Babylonian Nisānu, the first month of the year, as meaning "start, beginning," from the verb nisū, Heb. נִשָּׁע. אַמָּנו, Babylonian Addaru, February-March, is the dull, gloomy month. The stem ḫātā occurs in a list of words where ḫātum nāṣu-du-ru, "a cloudy day," is contrasted with ḫātum nāman-ru, "a bright day."7 ḫātanū, Babylonian Tēbētu, December-January, is the month of showers, the name coming from ṣībū, "to sink," Hebrew אָבָב, possibly a reference to sinking in water. If the name be really derived from a stem אָבָב "to sink," might not the reference be to the sinking of the sun in the short days of December-January? ḫātanū, Babylonian Shabātu, January-February, is the destroying month, so called from its devastating floods, from the verb shabātu, "to strike, to kill." The signs by which the Akka-

1 W. A. I., i. 57, col. viii. 45.
2 Ibid., i. 41, 23, pa-xx-ḫāt um-man-ka, "collect thine armies."
3 Ibid., iv. 19, 57.
4 Ibid., ii. 39, 2 and 3.
5 Ibid., iv. 19, 41.
6 ḥātin ēnšū, "protector of the weak," ibid., i. 36, 4.
dians wrote this word mean "the month of the curse of rain," and it is, accordingly, in the eleventh canto of the great Chaldean epic, corresponding to the eleventh month, that the episode of the deluge is related.

In large numbers of words the Assyrian has preserved the original meanings of stems, or shows that two stems written alike are etymologically different. In Hebrew רָאֵשׁ means "to rule," in the Niphal, "to take counsel." This latter is in Assyrian the regular meaning of the verb malāku. Malku, māliku is "the adviser," and then "the prince, ruler." יְנַשֶׁק, "to measure," and לִסָּה, "to anoint," have been supposed to be the same word. But the Assyrian shows that we have here two different stems, and that the Arabic word which has been used in comparison is perhaps only a borrowed word (p. 63).

It might be interesting to notice other comparisons of Hebrew and Assyrian in Delitzsch's work. But this article is already long enough. Yet pages 61-63 deserve special mention. This chapter concerns those Hebrew words which have מ. By a large induction it appears that when מ in Hebrew corresponds to the strong מ in Arabic (ך) it has been preserved in Assyrian, but when it corresponds to the weak מ in Arabic (ךָך) it has been lost in Assyrian. Thus סָינָה, Assyrian סֵיֶתְו, "sin," has an Arabic equivalent with ך, whereas רַפָּא, Assyrian סָאָדָפּוּ, "to overwhelm," has aך in the Arabic word which has been supposed to be an equivalent (sahafa).

By this method it is shown that כָּי, "an arrow," Assyrian עָסָע, has מ, and is not to be derived from כָּי, "to cut off, to pierce," Assyrian קָאָסָאָפּוּ, which has מ. Similarly רָבָּא, "to open," Assyrian פֵּיתָה, has מ, while רָבָּא, "to engrave," Assyrian פָּדָאָע, has מ.

In closing this article, I wish to say again that Professor Delitzsch's little volume cannot fail to do a great service for Semitic study, that it deals with facts and principles which no Semitic scholar can ignore, and that with all this it is written in a style so simple and pleasing as to be fully intelligible and enjoyable to a mere beginner in the Hebrew language.

1 W. A. I., v. 29, 11.
3 W. A. I., v. 1, 121, mi-lik .... im-li-ku, "they took counsel."
4 Ibid., i. 36, 8.

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