Manutius, vol. XV. p. 512); G. B. Bodoni of Parma (1768- 1813 ; see vol. iii. p. 849) ; John Amerbach at Basel (1492- 1516); John Froben at Basel (1496-1527 ; see vol. ix. p. 791); John Baskerville at Birmingham (1750-1775; see vol. iii. p. 421); the house of Wechel, first at Paris (c. 1530-1572), afterwards at Frankfort; Christopher Plantin at Antwerp (1554-1589), but continued long after under the firm *Officina Plantiniana* (see vol. xix. p. 176) ; the Elzevirs, first at Leyden, afterwards at Amsterdam (1580- 1680; see vol. viii. p. 156); Antoine Verard at Paris (1485-1513); Josse Bade at Paris (1495-1535 ; see Badius, vol. iii. p. 228); and the Estiennes at Paris (1502-1598; see Stephens, vol. xxii. p. 534).

*History of Modern Types.*

The Italic type@@1 is said to be an imitation of the handwriting of Petrarch, and was introduced by Aldus Manutius of Venice for the purpose of printing his projected small editions of the classics. The cutting of it was entrusted to Francesco da Bologna, an artist who is presumed to be identical with the painter Francesco Francia or Raibolini. The fount is a “lower case” only, the capitals being Roman in form. It contains a large number of tied letters, to imitate handwriting, but is quite free from contractions and liga­tures. It was first used in the *Virgil* of 1500. Aldus produced six different sizes between 1501 and 1558. It was counterfeited almost immediately in Italy, at Lyons, and elsewhere. Originally it was called Venetian or Aldine, but subsequently Italic type, except in Germany and Holland, where it is called “cursive.” The Italians also adopted the Latin name “characteres cursivi seu cancellarii.” In England it was first used by Wynkyn de Worde in Wakefield’s *Oratio* in 1524. The character was at first intended and used for the entire text of classical works. When it became more general, it was employed to distinguish portions of a book not properly belonging to the work, such as introductions, prefaces, indexes, notes, the text itself being in Roman. Later it was used in the text for quotations, and finally served the double part of emphasizing certain words in some works, and in others, chiefly translations of the Bible, of marking words not rightly forming a part of the text.

Greek type ( *minuscules)* first occurs in Cicero, *De Officiis* printed at Mainz in 1465 by Fust and Schoeffer. The fount used is rude and imperfect, many of the letter’s being ordinary Latin. In the same year Sweynheym and Pannarts used a good Greek letter for some of the quotations in their edition of *Laetantius* (see, for in­stance, leaves 11a, 19a, 36a, 139, 140) ; but the supply was evidently short at first, as some of the larger quotations in the first part of the book were left blank to be filled in by hand. The first book wholly printed in Greek minuscules was the *Grammar* of Lascaris, by Paravisinus, at Milan in 1476, in types stated to have been cut and cast by Demetrius of Crete. The fount contains breathings, accents, and some ligatures. The headings to the chapters are wholly in capitals. The *Anthologia Græca* of Las­caris was printed at Florence in 1494 wholly in Greek capitals *(litteræ majusculae),* and it is stated in the preface that they were designed after the genuine models of antiquity to be found in the inscriptions on medals, marbles, &c. But as late as 1493 Greek type was not common, for in that year the Venice printer Symon Bevilaqua issued *Tibullus, Catullus,* and *Propertius* with blanks left in the commentary for the Greek quotations. In England Greek letters appeared for the first time in 1519 in W. de Worde’s edition of Whitenton’s *Grammatica,* where a few words are in­troduced cut in wood. Cast types were used at Cambridge in Galen’s *De Temperamentis,* translated by Linacre, and printed by Siberch in 1521, who styles himself the first Greek printer in England ; but the quotations in the Galen are very sparse, and Siberch is not known to have printed any entire book in Greek. The first printer who possessed Greek types in any quantity was Reginald Wolfe, who held a royal patent as printer in Greek, Latin, and Hebrew, and printed in 1543 two *Homilies* of Chryso­stom, edited by Sir John Cheke, the first Greek lecturer at Cam­bridge. In Edinburgh, in 1563, and as late as 1579, the space for Greek words was left blank in printing, to be filled in by hand. In 1632 Cambridge applied to Oxford for the loan of a Greek fount to print a Greek Testament, and the same university made an offer in 1700 for the purchase of a fount of the king’s Greek at Paris, but withdrew on the French Academy insisting as a con­dition that every work printed should bear the imprint “charac­teribus Græcis e typographeo regio Parisiensi.” It should not be forgotten that the large number of ligatures in the Greek of that day made the production of a fount a serious business. The Oxford Augustin Greek comprised no fewer than 354 matrices, the

great primer 456, and even one fount showed 776 different sorts. The Dutch founders effected a gradual reduction of the Greek typographical ligatures. Early in the 19th century a new fashion of Greek, for which Porson was sponsor and furnished the drawings, was introduced, and has remained the prevailing form to this day.

The first Hebrew types are generally supposed to have appeared in 1475 in Petras Niger’s *Tractatus contra Perfidos Judæos* (leaf 10), printed by Conrad Fyner at Esslingen. De Rossi states that a Hebrew work in four folio volumes entitled *Arba Turim* of Rabbi Jacob ben Asher, was printed in 1475 at Pieve di Sacco in Austrian Italy, while in the same year, a few months earlier, Salomon Jarchi’s *Comment. on the Pentateuch* appeared at Reggio in Italy, printed in the Rabbinical character. Numerous other Hebrew works followed before 1488, in which year the first entire Hebrew Bible was printed, with points, at Soncino, by a family of German Jews. The first English book in which any quantity of Hebrew type was used was Dr Rhys’s *Cambro-Brytannicæ Cymræcæve Linguæ Institu­tiones,* printed by Thomas Orwin in 1592, though already in 1524 Greek characters, but cut in wood, were used by W. de Worde in Wakefield’s *Oratio.* But the Hebrew fount made use of in Walton’s *Polyglott* in 1657 was probably the first important fount cut and cast in England, though there were as yet no matrices there for Rabbinical Hebrew. In the beginning of the 18th century Amster­dam was the centre of the best Hebrew printing in Europe.

The first book printed in Arabic types is said to be a *Diurnale Græcorum Arabum,* printed at Fano in Italy in 1514.@@2 Two years later P. P. Porras’s *Polyglott Psalter,* comprising the Arabic version, was printed at Genoa ; and two years later a *Koran* in Arabic is said to have been printed at Venice. In 1505 an *Arabic Vocabulary* at Granada had the words printed in Gothic letters with the Arabic points placed over them ; and in other presses where there were no Arabic types the language was expressed in Hebrew letters or cut in wood. De Guignes and others mention a fount of Arabic used by Gromors in Paris in 1539-40 to print Postel’s *Grammar.* In England some Arabic words were introduced in Wakefield’s *Oratio* of 1524, but apparently cut in wood. In Minsheu’s *Ductor in Linguas,* 1617, the Arabic words are printed in Italic character’s. Laud’s gift of Oriental MSS. to Oxford in 1635, and the appoint­ment of an Arabic lecturer, were the first real incentives to the cultivation of the language by English scholars. Previous to this it is stated that the Raphelengius Arabic press at Leyden had been purchased by the English Orientalist, William Bedwell ; but, if it was brought to England, it does not appear to have been im­mediately made use of. The Arabic words in Thomas Greave’s *Oratio de Linguæ Arabicæ Utilitate,* printed at Oxford in 1639, were written in by hand.

Syriac type, probably cut in wood, first appeared in Postel’s *Linguarum XII. Alphabeta,* printed in Paris in 1538 ; but the characters are so rude in form and execution as to be scarcely legible. In 1555, however, Postel assisted in cutting the punches for the Syriac Peshito New Testament, printed at Vienna in 4to, the first portion of the Scriptures, and apparently the first book, printed in that language. In 1569-72 Plantin at Antwerp included the Syriac New Testament in his *Polyglott,* and reissued it in a separate form in 1574. In England Syriac was usually expressed in the earlier works in Hebrew characters. But in 1652, when the prospectus and pre­liminary specimen of Walton’s *Polyglott* were issued, we find Syriac type in use.

Of the Armenian character the press of the Vatican possessed a good fount in 1591, when Angelo Roccha showed a specimen in his *Bibliotheca Apostolica Vaticana.* A psalter is said to have been printed at Rome in 1565, and Rowe Mores mentions doubtfully a liturgy printed at Cracow in 1549. Armenian printing was practised in Paris in 1633 ; but the Armenian bishops, on applying to France for assistance in printing an Armenian Bible in 1662, were refused, and went to Rome, where, as early as 1636, the press of the Propa­ganda had published a specimen of its Armenian matrices. The patriarch, after fifteen months’ residence in Rome, removed to Amsterdam, where he established an Armenian press, and printed the Bible in 1666, which was followed in 1668 by a separate edition of the New Testament. In 1669 the press was set up at Marseilles, where it continued for a time, and was ultimately removed to Con­stantinople. In England the first Armenian type was that presented by Dr Fell to Oxford in 1667. The alphabet given in the pro­legomena of Walton’s *Polyglott* was cut in wood.

Of Ethiopic the earliest type appeared in Potken’s *Psalter and Song of Solomon,* printed at Rome in 1513. The work was reprinted at Cologne in 1518 in Potken’s *Polyglott Psalter.* In 1548 the New Testament was printed at Rome by some Abyssinian priests. The press of the Propaganda issued a specimen of its fount in 1631, and again in Kircher’s *Prodromus Coptics* in 1636. Erpenius at Leyden had an Ethiopic fount, which in 1626 was acquired by the Elzevirs. Usher attempted to procure the fount for England ; but, his attempt failing, punches were cut and matrices prepared by the London founders for the London *Polyglott,* which showed the Psalms, Canticles, and New Testament in the Ethiopic version.

@@@1 These paragraphs on the various types are for the most part taken from T. B. Reed’s *History of the Old English Letter Foundries,* London, 18S7, p. 50 *sq.*

@@@2 See Panzer, vii. 2.