the earlier memorials of the glacial period has been carried on in northern Germany, with the result of bringing out more clearly the evidence for the prolongation of the Scandinavian and Finland ice across the Baltic and the plains of Germany even into Saxony. The limits reached by the ice are approximately fixed by the line to which northern erratics can be traced. Beneath the oldest members of the glacial drifts, deposits are found in a fragmentary condition containing shells now living only in southern Europe, such as Paludina diluviana and Corbicula fluminalis. Above the glaciated rocks comes a stiff, unstratified clay, with ice-striated blocks of northern origin—the till or bowlder-clay (Geschiebelehm, Blocklehm). Two distinct bowlder-clays have now been recognized—the older or till separated by interglacial deposits from the newer. Terminal moraines marking the limits of the ice-sheet have been found in the form of ramparts of Scandinavian blocks and gravel, which have been traced for many miles along the coast-line and across the plains of northern Germany.[25] The sources of the various ice-streams which united to form the great ice-sheet that crept over the Germanic plain are well shown by a study of the stones in the moraine material. The Scandinavian rocks are found toward the west and the Finnish toward the east of the glaciated area. Among the intercalated materials that separate the two bowlder-clays are layers of peat, with remains of pine, fir, aspen, willow, white birch, hazel, hornbeam, poplar, holly, oak, juniper, ilex, and various water-plants, in particular a water-lily no longer living in Europe. With this vegetation are associated remains of Elephas antiquus, mammoth, rhinoceros, elk, megaceros, reindeer, musk-ox, bison, bear, etc. Some of the interglacial deposits are of marine origin on the lower grounds bordering the Baltic, for they contain Cyprina islandica, Yoldia arctica, Tellina solidula, etc. Among the youngest glacial, and probably in part interglacial, deposits are the upper sands and gravels (Geschiebedeck-sand), which spread over wide areas of the Germanic plain, partly as a more or less uniform but discontinuous sheet, and partly as irregular hillocks and ridges strewn with erratic blocks, and inclosing pools of water and peat-bogs. These mounds and ridges, with their accompanying sheets of water, form

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[25] G. Berendt, Jahrb. Preuss. Geol. Landesanst. 1888, p. 110; K. Keilhack, op. cit. 1889, p. 149.