&c., see A. H.'Keane, *Ethnology of the Egyptian Sudan* (London, 1884) ; H. Frobenius, *Die Heiden-Neger des ägyptischen Sudan* (Berlin, 1893). Scientific and medical subjects are dealt with in the *Reports of the Wellcome Research Laboratories,.* Gordon College, Khartum. The *Sudan Almanac* is a valuable official publication. (F. R. C.)

*Archaeology.—*Archaeological study in the Sudan was retarded for many years by political conditions. The work which had been begun by Cailliaud, Champollion, Lepsius and others was interrupted by the rise of the Mahdist power; and with the frontiers of Egypt itself menaced by dervishes, the country south of Aswan (Assuan) was necessarily closed to the student of antiquity. Even after the dervishes had been overthrown at the battle of Omdurman (1898) it was some time before archaeologists awoke to a sense of the historical importance of the regions thus made accessible to them. Dr Wallis Budge visited several of the far southern sites and made some tentative excavations, but no extensive explorations were undertaken until an unexpected event produced a sudden outburst of activity. This was the resolution adopted by the Egyptian government to extend the great reservoir at the First Cataract by raising the height of the Aswan dam. As a result of this measure all sites bordering the river banks from Aswan to Abu Simbel were threatened with inundation and the scientific world took alarm. A large sum of money was assigned by the government, partly for the preservation of the visible temples in the area to be submerged, partly for an official expedition under the charge of Dr G. A. Reisner which was to search for all remains of antiquity hidden beneath the ground. At the same time the university of Pennsylvania despatched the Eckley B. Coxe, jun., expedition, which devoted its attention to the southern half of Lower Nubia from Haifa to Korosko, while the govern­ment excavators explored from Korosko to Aswan. Thus in the five years 1907-1911 inclusive an immense mass of new material was acquired which throws a flood of light on the archaeology at once of Egypt and the Sudan. For it must be clearly appreciated that though all except the southern twenty miles of Lower Nubia has been attached for purposes of admini­stration of Egypt proper, yet this political boundary is purely artificial. The natural geographical and ethnical southern frontier of Egypt is the First Cataract; Egyptian scribes of the Old Empire recognized this truth no less clearly than Diocletian, and Juvenal anticipates the verdict of every modern observer when he describes the “ porta Syenes ” as the gate of Africa. It is the more necessary to emphasize this fact as the present article must unavoidably be concerned principally with the most northern regions of the country of the Blacks—for since the days of Lepsius there has been little new investigation south of Haifa. The hasty reconnaissances of Dr Wallis Budge, Professor A. H. Sayce, Mr Somers Clarke and Professor J. Garstang must be followed by more thorough and intensive study before it can be possible to write in more than very general terms of anything but the well-known monuments left by Egyptian kings whose history is already tolerably familiar from other sources. The inscriptions of these kings and their officials have been collected by Professor J. H. Breasted and some account of the temples and fortresses from Haifa to Khartum will be found in the following section, *Ancient Monuments south of Haifa,* while the history of the early and medieval Christian kingdoms is outlined in the articles Ethiopia and Dongola. The central and southern Sudan is therefore almost a virgin field for the archaeologist, but the exploration of Lower Nubia has made it possible to write a tentative preface to the new chapters still unrevealed.

The Sudan was well named by the medieval Arab historians, for it is primarily and above all the country of the *black* races, of those Nilotic negroes whose birthplace may be supposed to have been near the Great Lakes. But upon this aboriginal stock were grafted in very early times fresh shoots of more vigorous and intellectual races coming probably from the East (cf. Africa: *Ethnology).* Lower Nubia was one of the crucibles in which several times was formed a mixed nation which defied or actually dominated Egypt. There is some scientific ground for dating the earliest example of such a fusion to the exact period of the Egyptian Old Empire. It is certain in any case that the process was constantly repeated at different dates and in different parts of the country from Aswan to Axum, and to the stimulation which resulted from it must be ascribed the principal political and intellectual movements of the Sudanese nations. Thus the Ethiopians who usurped the crown of the Pharaohs from 740-660 b.c. were of a mixed stock akin to the modern Barabra; the northern Nubians who successfully defied the Roman emperors were under the lordship of the Blemyes (Blemmyes), an East African tribe, and the empire of the Candace dynasty, no less than the Christian kingdoms which succeeded it, included many heterogeneous racial elements (see also Nubia). The real history of the Sudan will therefore be concerned with the evolution of what may he called East African or East Central African civilizations.

Up to the present, however, this aspect has been obscured, for until 1907 scholars had little opportunity of studying ancient Ethiopia except as a colonial extension of Egypt. From the purely Egyptological standpoint there is much of value to be learned from the Sudan. The Egyptian penetration of the country began, according to the evidence of inscriptions, as early as the Old Empire. Under the XIIth Dynasty colonies were planted and fortresses established down to the Batn-el-Hagar. During the XVIIIth Dynasty the political subjugation was com­pleted and the newly won territories were studded with cities and temples as far south as the Fourth Cataract. Some two hundred years later the priests of Amen (Ammon), flying from Thebes, founded a quasi-Egyptian capital at Napata. But after this date Egypt played no part in the evolution of Ethiopia. Politically moribund, it succumbed to the attacks of its virile southern neigh­bours, who, having emerged from foreign tutelage, developed according to the natural laws of their own genius and environ­ment. The history of Ethiopia therefore as an independent civilization may be said to date from the 8th century b.c., though future researches may be able to carry its infant origins to a remoter past.

Of the thousand years or more of effective Egyptian occupa­tion many monuments exist, but on a broad general view it must be pronounced that they owe their fame more to the accident of survival than to any special intrinsic value. For excepting Philae, which belongs as much to Egypt as to Ethiopia, Abu Simbel is the only temple which can be ranked among first rate products of Egyptian genius. the other temples, attractive as they are, possess rather a local than a universal interest. Similarly while the exploration of the Egyptian colonies south of the First Cataract has added many details to our knowledge of political history, of local cults and provincial organization, yet with one exception it has not affected the known outlines of the history of civilization. This exception is the discovery made by Dr G. A. Reisner that the archaic culture first detected at Nagada and Abydos and then at many points as far north as Giza extended southwards into Nuhia at least as far as Gerf Husein. This was wholly unexpected, and if, as seems probable, the evidence stands the test of criticism, it is a new historical fact of great importance. The government expedition found traces between Aswan and Korosko of all the principal periods from this early date down to the Christian era. The specimens obtained are kept in a separate room of the Cairo Museum, where they form a collection of great value.

The work of the Pennsylvanian expedition, however, while adding only a few details to the archaeology of the Egyptian periods, has opened a new chapter in the history of the African races. No records indeed were discovered of the founders of the first great Ethiopian kingdom from Piankhi to Tirhakah, nor has any fresh light been thrown upon the relations which that remarkable king Ergamenes maintained with the Egyptian Ptolemies. But the exploration of sites in the southern half of Lower Nubia has revealed the existence of a wholly unsus­pected independent civilization which grew up during the first six centuries after Christ. The history of the succeeding periods, moreover, has been partially recovered and the study