

existence, laid down with meridians and parallels ; whilst *all* of their best known maps are on the old system of the circular disk. This apparent incapacity for map-making appears to have acted as a heavy drag and bar upon progress in Geography among the Arabs, notwithstanding its early promise among them, and in spite of the application to its furtherance of the great intellects of some (such as Abu Rihán al-Biruni), and of the indefatigable spirit of travel and omnivorous curiosity of others (such as Mas'údi).

83. Some distinct trace of acquaintance with the Arabian Geography is to be found in the World-Map of Marino Sanudo the Elder, constructed between 1300 and 1320 ; and this may be regarded as an exceptionally favourable specimen of the cosmography in vogue, for the author was a diligent investigator and compiler, who evidently took a considerable interest in geographical questions, and had a strong enjoyment and appreciation of a map.\* Nor is the map in question without some result of these characteristics. His representation of Europe, Northern Africa, Syria, Asia Minor, Arabia and its two gulfs, is a fair approximation to general facts ; his collected knowledge has enabled him to locate, with more or less of general truth, Georgia, the Iron Gates, Cathay, the Plain of Moghan, Euphrates and Tigris, Persia, Bagdad, Kais, Aden (though on the wrong side of the Red Sea), Abyssinia (*Habesh*), Zangibar (*Zinz*), Jidda (*Zede*), etc. But after all the traditional forms are too strong for him. Jerusalem is still the centre of the disk of the habitable earth, so that the distance is as great from Syria to Gades in the extreme West, as from Syria to the India Interior of Prester John which terminates the extreme East. And Africa beyond the Arabian Gulf is carried, according to the Arabian modification of Ptolemy's misconception, far to the eastward until it almost meets the prominent shores of India.

84. The first genuine mediæval attempt at a geographical construction that I know of, absolutely free from the traditional *idola*, is the Map of the known World from the Portulano

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\* His work, *Liber Secretorum Fidelium Crucis*, intended to stimulate a new Crusade, has three capital maps, besides that of the World, one of which, translated, but otherwise in facsimile, is given at p. 18 of this volume. But besides these maps, he gives, in a tabular form of parallel columns, the reigning sovereigns in Europe and Asia connected with his historical retrospect, just on the plan presented in Sir Harris Nicolas's Chronology of History.